

PUCTO, ALMAF

TOMB OF MARGRAVE HUGO Mino de Resole, Estia, Forence

BY

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For the use of H.M. Forces

TO THE MEMORY OF MY MOTHER

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ART AND THE MACHINE

PREFACE TO THE SECOND EDITION

Those who attempt to read these pages will be peculiar persons indeed if they have not been asked from time to time what they think about the modernist movement in Art. Since the book was first published the claims of a modern art which will not only supersede the art of all previous ages, but has already annulled it, have been pressed in some quarters with so much vigour that a few words of inquiry as to the true relation between the Past and the Present may with advantage be substituted for the former Preface.

The broad distinction, of course, is that the Past was one long age of continually developing Handicraft; the Present is the age of the Machine. Almost all the objects contained in our Galleries and Museums, almost all the buildings and other structures we have been taught to admire, were literally the work of men's hands. Devices like levers, rollers, cranes, and scaffolding might from time to time be invented to help construction on a large scale, but the actual cutting, shaping, and fitting of the component parts was done by direct human manipulation of simple tools. This age of Handicraft lasted for several thousand years, and it is upon the relics of the art of that period that we base most of our knowledge of human civilization,

and of its continuous efforts to make beautiful things.

We all see that the forms, shapes, and colours which have given pleasure to men's eyes have varied greatly in different countries, in different ages, and with different racial strains, as do the materials which from choice or necessity have from time to time been employed. But these variations, when viewed in due perspective, prove to be neither fortuitous nor unrelated in character. All of them follow curves of growth and decline which, while differing in extent and in steepness, are more or less constant in direction. From these constant factors it is possible to deduce certain broad general principles (such as those noted on p. 40 of this book), which apply to the whole field of Design, as hitherto accepted.

But, it is argued, this Design was based entirely upon the practice, the limitations, of Handicraft; and the days of Handicraft are done. Is it not time that all these antiquities, which have hitherto provided our aesthetic landmarks, were thrown upon the scrap-heap, except for historical study, and replaced by a new art with new canons of beauty corresponding to the omnipotent machine?

Before we accept any such sweeping conclusion we may reasonably ask one or two questions. Is the break between Handicraft and Machinery quite so unprecedented and so absolute as the enthusiastic modernist thinks? Have not the arts all through their long history continually had to adapt themselves to change and extensions, when new needs, new methods, and new materials were forced upon the creative designer? Yet such extensions while they enlarged the scope of design have never altered its basic principles. Those principles, being founded on man's sensory perceptions, cannot radically change until man himself becomes a different being, and of that, for all our popular science, our sky-scrapers, motors, wireless, and aeroplanes, there is no sign whatever. May not then the extension of methods and materials due to machinery, immense as it is compared with any previous extension of the craftsman's province, prove in the end to be subject to essentially the same aesthetic standards as the products of the past?

Granting the need of some adjustment to fresh needs, this conclusion seems as inevitable as it is consoling to those who do not wish to be deprived of the pleasure of seeing ancient cities, of visiting Galleries and Museums, and of buying the things which they admire, whether old or new, hand-made or machine-made. Yet if our study of the arts is to be a live thing and not mere antiquarian pedantry, the readjustments due to modern science and machinery must not be denied or disregarded. One or two of them, and by no means the least important, were not adequately discussed in the former edition of this book, so I will mention them here.

If we were asked to name the most characteristic quality of a machine-made article, almost all of us would say that it was Precision of Form. A machine-tool makes a clean cut, a sharp uniform contour, a level surface, and this perfect accuracy, apart from any increase in functional effectiveness which it may portend, can have a singular attraction. What small boy has not flattened his nose against an instrument maker's window, to admire the polished tubes of microscopes, the fascinating compass families on their beds of dark blue cloth in polished brass-bound mahogany boxes, the wellturned gauges and barometers, with perhaps a model steam-engine or steam-boat? One need bc no advanced modernist to delight in such minute accurate craftsmanship, and in the varied play of light upon the polished metals. A somewhat similar pleasure may be derived from good photographs of larger machines. But when we come face to face with the originals, the pleasure is not the same. The power and efficiency of the machine will then become the impressive factors: the fascinating detail of a photograph, or of a small model, may be enlarged beyond recognition. Mechancial precision indeed shows to the best advantage on a relatively minute scale, as when engine-turned patterns alternate with plain surfaces on table-glass, on a cigarette case, or a sleeve-link. Then the machine can produce an effect of intricacy, of mystery, which has no little



the Machine, as I have indicated elsewhere, lies in the quality of the Rhythm which they respectively produce. That of the Machine involves a precise repetition and is therefore monotonous; that of Handicraft is marked by constant variations giving it the flow and movement of life. Primitive art in particular owes its liveliness to this rhythmic ease. When the variations are minimized by a sophisticated handicraft, aping the precision of a machine, the life dies out.

What is the practical result? Is it not that machinery has given the artist a new medium, with certain new capacities, certain disabilities, and a technique expanding every day as scientific discoveries increase? Indeed that technique is already too complex to be mastered in an ordinary art school: it needs to be learned in the laboratory and the machine-shop. The general principles of artistic beauty remain unchanged, but the processes and methods of Handicrast, being different from those of the Machine, cannot safely be applied to it: and vice versa. We see, for example, in some modern paintings what confusion may come from introducing mechanical ideas into a Handicraft. Even more unhappy, and infinitely more pernicious, is the result when handicrafts are imitated by machinery, as in the Victorian agc.

A GRAMMAR OF THE ARTS	
6. Pattern and Pottery; 7. The Properties of Brushwork; 8. Symmetry; 9. Balance; 10. Proportion; 11. Decoration and Colour; 12. Colour and Form; 13. Colour Harmony; 14. Colour Quality; 15. Colour and Expression; 16. Decoration and Significance; 17. The Three Elements of Pattern; 18. The Architectural Structure; 19. The Rhythmical Motive; 20. The Stimulus of Contrast.	PAGI
CHAPTER IV. CONSTRUCTIVE ART	44
1. Fitness for Purpose; 2. Right Use of Material; 3. Truth and Falsehood; 4. Decoration and Construction; 5. Objets d'Art.	
.1	
PART II. THE PRINCIPLES APPLIED	•
Chapter V. Drawing	55
1. The Uses of Drawing; 2. Palaeolithic Drawing; 3. Neolithic Drawing; 4. Greek Drawing; 5. Italian Drawing; 6. The Value of Drawings; 7. Black or Red Chalk; 8. Lead Pencil; 9. Pastel and Charcoal; 10. Pen and Wash; 11. Brush Drawing; 12. Water-Colour.	•
Chapter VI. Engraving	67
 The Forms and Uses of Engraving; Wood Engraving; Lithography; Engraving on Metal; Line Engraving; Dry-Point; Mezzotint; Etching; Aquatint. 	
CHAPTER VII. PAINTING	76
 Purposes and Tradition; Fresco; Mosaic; Tempera Painting; Oil Painting; The Purposes of Painting; The Traditions of Painting; The Oriental Tradition; The Classical Tradition; 	

CONTENTS	1
dition; 10. The Cabinet Pieture in the Netherlands; 11. Poussin; 12. Portraiture; 13. Landscape; 14. Principles Governing the Cabinet Pieture; 15. Tradition and the Individual; 16. The Historic Temper; 17. The Scientific Temper: its Three Forms; 18. The Philosophic Theorist; 19. The Right Use of Theory; 20. The Mathematician; 21. The Eclectic; 22. The Realistic Temper; 23. The Romantic Temper; 24. Conclusion.	PAGE
CHAPTER VIII. SCULPTURE	123
1. The Various Forms of Sculpture; 2. The Application of Colour to Sculpture; 3. Sculpture in the Round; 4. Sculpture in Stone—Egypt; 5. Greece; 6. The Middle Ages; 7. Renaissance Italy; 8. France; 9. The Nineteenth Century and After; 10. Oriental Statues; 11. Sculpture in Bronze; 12. Greek Bronzes; 13. Italian Bronzes; 14. Later European Bronzes; 15. Oriental Bronzes; 16. Sculpture in Wood; 17. Sculpture in Clay; 18. Sculpture in Relief; 19. Greek Reliefs; 20. Mediaeval Reliefs; 21. Renaissance Reliefs.	3
Chapter IX. Architecture	147
1. Architecture and Building; 2. The Origins of Building; 3. The Flat Roof; 4. The Dome and the Arch; 5. The Gabled Roof; 6. The Door; 7. The Window; 8. The Need for Emphasis of Structure; 9. Power; 10. Grace; 11. Proportion; 12. Vitality; 13. Conclusion.	
CHAPTER X. CERAMICS AND GLASS	167
 The Potter's Wheel; The Three Types of Form; The Flower; The Tower; The Flask; The Kiln and the Materials; Primitive Decoration; Geometrical Patterns; Naturalistic Patterns; 	•

xv ,

Self-coloured Wares; 11. Glass Vessels; 12. Stained

Glass.

Ceapter XI. Textiles	189
1. The Loom and its Products; 2. Tapestry; 3. Carpets and Rugs; 4. Dresses and Curtains; 5. Printed Fabrics.	
CHAPTER XII. METALWORK, WOODWORK, AND PRINTING	200
1. Bronze and Brass; 2. Iron and Steel; 3. Gold; 4. Silver; 5. Woodwork; 6. Printing; 7. Binding.	
Appendix. The Theatre of Painting	221
Tamora	221

ILLUSTRATIONS

1. Mino da Fiesole. Tomb of Margrave Hugo; Badia, Florence		Fron	tispiece
 Rhythm: Oriental and Classical (a) Dancers, Cambodia. From The Spirit of the Forms, by Elie Faure (b) Raphael: The Sibyls; S. Maria della Pace, Rome 	Faci	ng p	age 24
3. Rhythm: Japanese(a) Ladies walking. Print by Utamaro(b) Cranes. Japanese silk	Ų	,,	90
4. Rembrandt: Entombment. First state	,,	,,	74
5. Rembrandt: Entombment. Seçond state	,,	,,	120
6. The Giralda, Seville	,,	,,	160
7. The Tower. Chinese Vase. Salting Collection. V. & A. Museum	1•	,,	170
8. The Flower and the Flask. (a) Chinese Vase. Salting Collection. V. & A. Museum. (b) Turkish Bottle. V. & A. Museum.	,,	,,	172
 Use and Abuse of Material. (a) Wrought Iron Chandelier Rod. V. & A. Museum. (b) Chippendale Mirror- 			
Frame. V. & A. Museum	"	,,	202
. , xvii		В	



Most of us, at one time or another, will have experienced both the discomfort of being compelled to use in public a language which we have merely 'picked up', and the relief and comparative security of turning to one which we have had to learn with a grammar. Yet this Grammar, the structural foundation of a language, like its spelling and vocabulary, cannot be viewed as something quite fixed and immutable. Every day our vocabularies are enlarged by new terms, imported from other countries, from science, from industry, from sport or by slang. Structural form and idiom alter in the same way, though the changes there are neither so conspicuous nor so rapid. A grammatical formula which is valid for one age may thus call for modification in the next. Nevertheless such formal rules, though devoid of absolute finality, are of the greatest practical service to us. Not only do they help us to discriminate, in utterance, between what is clear and precise, what is ambiguous, and what is inaccurate or misleading; but they condense into some single term or curt sentence, which can easily be memorized, a general principle . which governs innumerable possibilities of thought or expression. The clarity of perception and discrimina-

tion thus inculcated, thus made almost instinctive, are no less essential to the artist than to the writer. For the artist may have to handle implements and materials far more troublesome than pens and ink; and, at the same time, to keep in mind the aesthetic experience, the technical and visual custom, of many countries and periods, instead of being able to concentrate upon expression in one single tongue. What holds good for the artist, holds good also for every student and critic. Precision of thought, quickness and certainty of discrimination, are the primary factors in sound judgment. If we can get them from Grammar, we may well forgive Grammar for its dryness and pedantic air.

There are other matters, however, which we must take into account. Race and environment are now universally recognized as having so decisive an influence upon the shaping of human character, and the direction of human activities, whether practical or spiritual, that we have not only to consider how far they may be responsible for the infinite diversity of artistic effort in the past, but whether they may not imperceptibly prejudice our critical perceptions to-day. Unless we are conscious of the possibility of this racial bias, are ready to watch for it, and to make allowances for it, we cannot expect to hold the balance fairly between the various and conflicting ideals which are at present forced upon our notice.

Though we need not accept it without considerable reserve, there is something to be said for the theory that the sense of rhythmic movement and colour was

characteristic of the primeval black race, and that by them it was communicated, in varying degrees, through long ages of conquest or slavery, to the yellow and the white races, whose natural tempers were wholly different. The mixed peoples thus brought into being were affected, in their turn, by their environment, by the forces of social and political evolution, and by fresh wars and migrations, involving further mixtures of racial attributes, with the results which we see around us to-day. The eastern half of the Mediterranean will serve as a convenient centre from which to survey a few of the more important movements.

Far to the south, in a huge crescent extending from the Atlantic to Melanesia, lies the negroid domain. In the west, towards the Straits of Gibraltar, this negroid element has percolated into Europe from time immemorial. In the east it has coloured Southern India, the Malay country and Archipelago, and the Mongolian borderlands. In the centre it filtered upwards, through Egypt, into Syria, Mesopotamia, and Arabia, the territory of the Semites, to the shores and islands of the Mediterranean, and thence, with the Greek and Phoenician traders, to the Atlantic coast. So, when artists turn with sympathetic enthusiasm to the sculptures of Benin or of Easter Island, it is possible that they are merely reverting to a remote ancestral taste.

The yellow races of Northern and Eastern Asia present, in some respects, a parallel to racial movements in Europe. The north appears to have been the cradle

to administration, and to country life and sport, have found vent in romance, developing perhaps as poetry or music, rather than in painting and sculpture. From the aesthetic standpoint, therefore, it would seem as if a drop of Southern blood in a man's veins was a distinct advantage.

We may now turn for a moment to the ways in which these racial compounds may be affected by their environment. In a northern climate, where the winters are long and dark, much of a man's life will, perforce, be spent indoors. He will therefore tend to pass the time with music, or with legends, more especially if his country borders upon the sea with its infinite mysteries. If he has a bent for art, his treatment of things will be atmospheric and pictorial, a reflection of the vaporous element by which he is enveloped. Everyone round him will be more or less thickly clothed, so that he will be interested more by heads and hands than by the trunk and the limbs. In a hot climate these conditions will be reversed. Wearing the minimum of clothing, everyone will be familiar with the nude human body, and be no less interested in its movements than in the character shown by the head. These movements, when they take the form of dancing, will have a musical accompaniment which, in its incessant and stimulating rhythmic iteration, will be very different from the deliberate structure and romantic mood of music in the north. Where such Southern peoples are surrounded by the sinuous luxuriance of a jungle, some of that luxuriance will appear in their art, as we see in

India. Where the air is bright, the country clear-cut and open, man's thoughts and his art will be definite also, as we see in Egypt, Greece, and Italy. Where there are outcrops of good stone, architecture and sculpture will flourish; where there are metals and clay, man will learn to master them. Where a country has no pronounced character, but is muffled in monotonous forest, as are some parts of Germany and Central Europe, the inhabitants will have little inspiration but that of the workshop, and will acquire skill chiefly in the minor crafts.

Where these city folk have lived for generation after generation in narrow streets, toiling and brooding and haggling and hoarding, in constant fear, it may be, of persecution and pillage, of inquisition or conscription, of the pogrom or the knout, it is only natural that their outlook, and that of their descendants, upon life and art, will be very different from the imagery of the open air which the countryman inherits. He will incline always to naturalism or realism, to beauties in some way associated with the wind and sunshine and space in which he has been accustomed to find freedom. The city dweller will be concerned with his possessions -the rich fabrics, the jewellery, and the objects of art which serve to decorate his narrow treasure-houseor, if the memory of scorn and oppression has driven him to revolt, with a fierce desire to construct a new world, wherein despotism, mili ary, civil, or ecclesiastical, its doings and its appurtenances, have no place. For such a new world, the theoretic impartiality of a Com-

munist state, the stark truths of geometry, the smooth, automatic working of a well-kept machine, seem to present ideals or analogies which, with conviction, may be clevated to the dignity of a Faith, crystallized in due course as dogma, and applied not only to social relations but to art and letters.

All these variants, these dialects, these idioms, the true grammar will take into account and endeavour to weigh fairly; taking for the pivot of its balance some point that appears to come midway between the extremes of an Order which has become mechanical, academic, geometric, and a Freedom which has run riot, and is passing into chaos. The exact position of that pivot will be settled, in the end, by the very same conditions of race and environment which govern the artist himself. The black and the white, the citydweller and the countryman, will each tend to locate it in a place not far from his own instinctive preferences. All we can do to determine its position more fairly, and our determination then can only be approximate, is to survey the main conditions as they appear to us here and now, with a critical eye for the influence of racial and other causes upon our ultimate judgment.

We may begin with Germany, whence so large a part of our critical literature has come. There, the lominance of the white race has been pronounced, although in the Rhine valley and in the south there has been an intermixture with other peoples. At first its art was almost wholly of the type produced in cities, remarkable rather for conscientious elaboration

and patience than for any large rhythmic enthusiasm. The rhythmic genius of the nation was afterwards to find vent in its incomparable music, while its elaborate disciplined patience led to analyses of philosophic thought, of history, and of aesthetics, which are respected everywhere. The creative side of German art appears, however, to have been absorbed rather than stimulated by this habit of intricate research, the intricacy being reflected in an instinctive affection for a Baroque style. This affection colours all their best and most typically German achievements. The efforts which they have made, from time to time, to employ more classical methods, are by no means so spirited and so fortunate.

In France, from the first, there has been a far. stronger admixture of dark blood. The Greek settlement at Marseilles, the long Roman occupation, infiltration through the Spanish frontier and by way of the Atlantic coast—all these left an impression which the influx of the Gauls and the raids of the Northmen could not efface. The result has been an ethnic amalgamation, similar to those to which we must attribute the outbursts of art in Greece and Renaissance Italy, wherein the ingenuity and rhythmic impulse of the South are blended with Northern energy and order. The contest between the Classics and the Romantics, between Ingres and Delacroix, a hundred years ago, will illustrate the variety of inspiration to which such a racial union may give birth.

To it the French owe their high place in the world's

esteem. And they may be strengthening their potential artistic capacity, on the rhythmic side, by the favour which they now show to their African colonists, and to the immigrants from Central and Southern Europe who exert so potent an influence upon current Parisian tastc. To the Central Europeans we may ascribe some of the distaste for Naturalism, to the Southerners some of the fashion for Provencal sunshine, which the aesthetic modistes of the day have exploited so eleverly. So, if we should be choosing a typical figure in modern French art, it might be safer to choose Degas rather than Cézanne, since in Degas, limited though his range may appear, the feeling for life is expressed with a structural science, and a control over the rhythms of form and colour, which have seldom been more boldly and exquisitely blended.

In England the fair-haired Anglo-Saxon race, has been generally dominant, though from very early times there had been infiltrations of the dark-haired Mediterranean peoples on the south and west coasts. The Romans, apparently, left few traces of their civilization, but missionaries brought a knowledge of Byzantine artistic traditions, which was developed, after the Norman conquest, with so much success that the English, in their missals and embroideries, rivalled or surpassed the French. Then came the Black Death in 1348, with the Wars of the Roses a century later, to destroy our native craftsmen. France and the Netherlands (the latter being partly Spanish) helped to restore the artistic strain, sending us a succession of

emigrants, each bringing some tincture of Southern blood to London and the east coast. In more recent times, the breaking down of the barriers enclosing Southern and Central Europe has made London, like Paris, the haven for another type of refugee, of which the Rossetti family will serve as early and illustrious examples. These immigrants are now making their influence felt, not only in art and letters, but in our commerce and social policy. Yet the bulk of the population still retains some Anglo-Saxon characteristics, among them a taste for the countryside, from which English art and criticism have derived their bent towards naturalism (notably in landscape), and a certain coolness towards the rhythmic, impulsive Southern taste. To this trait, which carries with it a certain unreadiness in dealing with the nude figure, we must add a more serious defect-indolence.

The loss of nearly all the most spirited and enterprising blood in the country, during the first years of the war, may possibly explain this phenomenon; but there can be no doubt about its existence. So far indeed do we carry our liking for what is done without methodical practice, a precaution which our rivals do not disdain, that we almost prefer the "good loser" to the laborious winner, the facile approximation to the hardly won success. This distaste, or disability, for intensive concentration, this glorification of the amateur, tends to make us but half-hearted practitioners in the arts, where quickness or slowness in production matters nothing, and the perfection of the result is everything.

Its most fatal effects, of course, are seen in our public life, in our tolerance of mediocrity and incompetence if they seem to "play the game", our sentimental regard for graceful failure. Our current attitude towards the arts is thus too variable in quality-too much dominated by naturalism and sentiment, too deeply drugged with an indolence which is ready to accept things as they are, rather than take the trouble to inquire into causes, to labour with the head as well as with the hand—to be of service in supplying us with any standard of aesthetic excellence. We have admirable individual artists, and a group of draughtsmen and crastsmen who carry on the fine tradition of grace in form, with restraint in the usc of ornament, which made England famous a hundred and fifty years ago. If to those qualities we could add the more courageous rhythms, the structural science which, in its limited field, the work of Degas exemplifies, we should not be far, I think, from a safe standard for our Grammar. But Grammar can do us little or no service, unless we employ it with some portion of the will, the energy, the faith, the cnthusiasm, which furnish the driving power for all creative artists, and which are needed also by the student who would experience to the full the deep thrill of pleasure that comes of communing with their genius.

Finally, we must never forget that the impulse, the instinct, to create a work of art, is not in itself quite enough. The intellect, the power of conscious reasoning, must grasp the crude idea and fashion it into the destined

form. In a simple craft, such as the making of plain pottery, the share of the intellect may be relatively small. In the more complex arts of a highly civilized society, the intellect may have to play so considerable a part that the initial creative impulse may come to be obscured. Yet that impulse is the vital cell of the whole artistic organism. If it be absent, feeble, or overwhelmed, the intellect has no proper material to work upon. Hence the pedantic exercises and aesthetic jig-saw puzzles of the day—phenomena by no means peculiar to the Arts which are commonly termed Fine. Instinct and reason have each their due place; yet instinct must come first. Reason is no substitute for it, but merely its invaluable handmaid.

CHRONOLOGICAL SUMMARY

The subjoined table may help the reader to form some idea of the sequence of artistic activities in the Eastern Hemisphere. To avoid complexity the dates, in most cases, are given in round figures; they must therefore be regarded only as roughly approximate.

B.C.	EUROPE	ASIA AND AFRICA
11,000	Palacolithic Period. Aurigna-	
•	cian Man. Carvings of	1
1	horses and women.	1
9,500	Magdalenian Man. Draw-	
to	ings, paintings, and reliefs of	
7,500	animals, gradually degene-	
	rating.	
7,000	Mesolithic Period. Few re-	
,,	mains of art at present	
	known.	
5,000	Neolithic Period.	Potters at work at Susa, in
3,000	1 regitatio 1 ciroa.	Egypt, and perhaps in W.
		India.
4 400		The Flood in Mesopotamia.
4,400		Metalworking begins. Early
4,000		
		dynasties at Kish and Ur.
3,500		Fine metalwork at Ur. The
		arch invented.
3,400	Cretan art begins.	First dynasty in Egypt.
2,900		Fourth dynasty in Egypt.
		Fine sculpture. Great Pyra-
		mid built.
2,000	Finest period (Middle Min-	
-	oan) of art in Crete.	
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xxxi

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B.C.	EURÒPE	ASIA AND AFRICA
1,500	The Mycencan Age in Greecc.	Bronze statues cast in Chaldaea. Coloured enancelware in Egypt.
1,375	Stonehenge may have been built about this time.	Tell-cl-Amarna portraits in Egypt. Period of Tutan- khamen.
1,100	The Dorian invasion of Greece. The Age of Iron.	
800	The Homeric Age in Greece.	Assyrian sculpture begins.
700	Corinthian painted pottery.	Saite revival of art in Egypt. Assyrian art at its best.
600	Black-figure pottery and ar- chaic sculpture at Athens.	Buddha and Confucius lived about this time.
500	Red-figure pottery begins at Athens.	The Achaemenid dynasty in Persia. Splendour in building: use of enamelled brick, etc.
450	The Age of Phidias. The Parthenon rebuilt.	,
350	The Age of Apelles and Greek painting. In sculpture Praxiteles is followed by Lysippus. Tanagra statuettes.	,
330	Conquest of the East by Alexander.	
250	The Hellenistic Age begins. The arts practised with skill but without inspiration.	Hindu sculpture at Sanchi, also Hindu-Greek work and Buddhist architecture.
206		The Han dynasty begins in China.
166	·	The great altar built at Pergamon.
146	Conquest of Greece by Rome.	_
A.D.		• •
14	Death of Augustus. Roman building and glass are notable.	Silks are exported from China. Pottery and bronzes made there.

A.D.	EUROPE	ASIA AND AFRICA
330		Sassanian dynasty begins in Persia. Han dynasty ends in China.
324	Byzantium (Constantinople) becomes the capital of the Eastern Empire, and excels in mosaic, enamelled metal-	Empire begins.)
400	work, silk, weaving, em- broidery, and ivories.	l
500	Theodoric the Ostrogoth conquers Italy.	Sassanian silver and textiles. Hindu painting at Ajanta.
600	Byzantine art continues at Ravenna.	Tang dynasty begins in China, and sculpture flourishes there.
640	The Book of Kells produced at about this time in Ireland.	The Arabs conquer Persia, Egypt, and India.
700	The Arabs conquer Spain. The Middle Ages have begun.	Nara period of Buddhist art in Japan. Hindu sculptures at Borobudour.
800	Age of Charlemagne. The Moors build the Mosque at Cordova.	Age of the Caliph Haroun-al- Raschid, and of the Chinese painter Wu-Taotzu.
96o	•	The Sung dynasty begins in China. Paintings of land-scapes and flowers. Egypt famous for textiles and lustre-ware.
1050	Romanesque architecture: Hispano-Moresque art: Sicilian brocades.	
1150	Moors build the Giralda at Seville.	
1200	The age of the Gothic cathedral builders and sculptors in France and slightly later in England.	Persian pottery flourishes at Rayy and elsewhere. Colossal bronze Buddha at Nara cast (1250).

A.D.	EUROPE	ASIA AND AFRICA
1300	England famous for embroi cries (Opus anglicanum), an with France, for Illuminat MSS. Duccio, Giovan Pisano, and Giotto revi- Italian art.	d- Hindu sculpture and arch id, tecture at Orissa.
1368	end.	The Ming dynasty begins in China.
1400	Early Renaissance in Flocuce: Masaccio, Donatelle and Brunelleschi. The brothers Van Eyek perfect the oil medium.	r- Chinese porcelain steadily o, gains in delicacy and bril- te liancy of colour. (Easter
t450	The Italian Renaissance is full vigour. Tapestry weaving in the Netherlands.	Sesshiu, the Japanese land- scape-painter.
1500	The ripe Renaissance: Leonardo, Bramante, Raphael Michelangelo, Correggio, and Titian. Dürer and Holbein in Germany. Hispano-Moresque ware in Spain.	miniaturists active. Moto- nobu painting in Japan.
1550	The Age of Tintoretto, Paul Veronese, and Greco; of Venetian brocades, of Sansovino, and Palladio, and Cellini; of the Eclectics and the 'Naturalists'. In France, Henri II. ware and Palissy ware produced.	time, as were the Turkish wares known as 'Damaseus' and 'Rhodian'.
1600	The Baroque period begins with Rubens. Jacobean silver-plate in England.	Fine Persian silks and velvets. Fine Japanese carving and metalwork. Art in China declines.
1625	The Baroque developed by Bernini. Longhena builds the Salute at Venice. Inigo Jones active in England. The Age of Rembrandt, Van Dyck, and Velazquez; of Claude and Poussin.	The Taj Mahal at Agra built. In Japan, Eitoku the great screen-painter is active, and Matabei introduces genre painting.

xxxiv

A.D.	EUROPE	ASIA AND AFRICA
1650	furniture, Caffieri in bronze, and Le Gaseon in binding. In Holland, De Hooeh and Vermeer are active, and Delft potters copy Oriental ware.	
1675	Age of Sir Christopher Wren.	Age of Sotatsu and Korin in Japan.
1700	Watteau, Coysevox, and Man-	The Genroku period in Japan
1	sard represent the arts in France. 'Queen Anne' furniture in England.	India exports printed cotton fabrics.
1725	Tiepolo and Canaletto active in Manice; Chardin and Boucher in France; Hog-	lain and sarvings of a de-
	arthin England. The rococo style of Louis XV. in furni- ture.	ence European taste.
1750	The Age of Gainsborough, Reynolds, and Romney in England, of Chippendale furniture, Paul Lamerie silver, and of Bow, Chelsea, and Worcester porcelain. In France, Louis XVI. furniture, Fragonard paintings and Sèvres porcelain. Dresden porcelain at its best, Excavations at Herculaneum started.	The Japanese colour-print perfected by Harunobu.
1775	The classical revival begins, with Houdon in sculpture. Sheffield Plate, Wedgwood ware, Robert Adam, Sheraton and Hepplewhite furniture. English mezzotint engraving at its best.	The Age of Utainaro, Shun- sho, and Kiyonaga in Japan.

A.D.	EUROPE	ASIA AND AFRICA
1800	The Age of Canova, Flaxman, David, and the Empire style in furniture. Lawrence, Goya, and William Blake active.	Toyokuni in Japan.
1825	Turner and Constable active in England: the contest between the Classics and Romantics begins in France.	Japan.
1850	Courbet and Manet revive Realism in France; Dau- mier, Millet, Barye, and Corot active: in England the Pre-Raphaelites and Alfred Stevens.	
1875	The Impressionists and Cez- anne working in France: in England William Morris re-	Japan, opened to foreign trade in 1868, influences art, first in Paris and later in England.

PART I THE GUIDING PRINCIPLES

CHAPTER I

THE ARTIST AS CREATOR

1. What is Art?

THE question sounds innocent and simple enough. But the word Art has come to be applied indiscriminately to so many forms of human activity, from the loftiest efforts of the intelligence to competence in hairdressing or golf, that no single formula can really cover such an infinite diversity of ideas. Even if we restrict the Arts to their more natural province, comprising Music, Literature and Drama, Painting and Sculpture, Architecture and the Handicrafts, we are not much better off. The philosophers, and others who have written upon aesthetics, have failed so far to find any answer to the question which is accepted as final or satisfactory. Having thus no old and trusty definition of Art to guide us, nor any new one to propound, we may turn at once from abstractions to consider how works of art come into being.

2. The Creative Impulse

Creation is the primary impulse of all the arts. The musician is inspired to create things that are good

to create things that are good to read. The painter, the sculptor, and the crastsman are inspired to create things that are good to see. It is the thrill of creation, the excitement of making something new, which starts each of them upon his labour and sustains him through it. As the new creation comes to life under his hand, the artist experiences the pleasure of supreme power. What he sashions is his to alter, to embellish, or to destroy. He is the monarch, the god, of his own little world.

"I wish to feel like a Prince when I paint", said one of the great Japanese masters, and that saying embodies the subconscious spirit of every genuine artist.

3. The Artist and his Audience

If the exhilarating effect of this creation were confined to the artist himself, we might regard Art as a somewhat selfish amusement, a sort of aesthetic and intellectual drug-taking, which, while giving pleasure to those who practise it, was of no service to their fellows. But the new thing which the artist creates has a life of its own, a life which may last long after its creator is dead and forgotten. In that vital element his spirit lives on, immortal, and is kept in touch with all similar spirits who come into contact with it henceforth. So the carvings and rock-paintings of Palaeolithic man still convey to us, after ten or twelve thousand years, something of the spirit and delight of those remote forerunners of our race. We can still share in

THE ARTIST AS CREATOR

the far distant thrill of creative excitement that brought these images into being, just as we may still be moved by the mighty eloquence of Homer, or by the feelings of pity and fear that a tragedy like the Agamemnon excites.

4. The Essentials of Creation

Only we must remember always what Creation implies. It implies the making of new life. If what is made is not new, it is mere imitation, and so comes to the artist's audience as something already stale, containing no element of novelty to stimulate the atten-If it is not fully alive, it can transmit only a feeble and anaemic message to others. For the thrill which the artist's creative act passes on to his audience, must necessarily be transmitted by a sort of reflection from the image he has created, and that reflected image can never be quite so sharp and vivid as was the original in the artist's mind. So it is only the most intense and the most vital creative impulses which can survive the ordeal of time, and of constant competition with newer creations. All the rest must inevitably fade into relative or complete oblivion, except in so far as the historian may need them to illustrate a barbarous or an enfeebled age.

5. The Three Forms of Creation

The World of Art, as surveyed in this little book, may, like Caesar's Gaul, be divided into three parts: Representative Art, Decorative Art, and Constructive

Art. Each of these has its own purpose, ideal, and conditions, and from their employment, either separately or in combination, all existing works of art have come into being. Representative Art expresses the relation of the artist to the world outside him. Some phase of that world's life impresses him so vividly that he is impelled to record it, to re-create it, by means of drawing or painting or sculpture. Its two great divisions are what we term Realism and Naturalism.

Decorative Art has no necessary relation to the world outside the artist, though its materials and imagery may often be borrowed from that world. It originates in man's natural pleasure in rhythmical movement, the pleasure which finds expression in dancing and music. Coming as it does from the inmost part of man's subconscious self, it has an elemental force of which we have not yet perhaps explored the full range and potency. Pattern and design are the words by which we describe its ordinary appearances.

Constructive Art is concerned with the invention of things that are of service to man, as well as things of beauty. It will thus range from the making of a clay pot to the building of a cathedral. More than all the other arts it is governed by considerations of material. The right use of tools and materials plays in it almost as large a part as purely aesthetic considerations. For example, it was a relic of barbarism in the Athenians to use ivory for monumental sculpture. It would be no less extravagant in these days to carve teapots out of granite.

THE ARTIST AS CREATOR

When these three aspects of artistic creation are clearly understood, the knowledge so acquired will prove of invaluable service. It will provide us with a foundation of sound principles, which turn the analysis of even the most complicated manifestations of art into a relatively simple study. Our next step, therefore, will be to consider Representation, Decoration, and Construction in some detail. After that we may approach with more confidence the problems which Painting, Sculpture, and other branches of art individually present.

CHAPTER II

REPRESENTATIVE ART

1. Primitive Man

THE oldest examples of art of which we have any knowledge are all representative in their aim. The early cave-dwellers (Aurignacian, about 11,000 B.C.) have left us some singular statuettes of fat women, carvings of horses, rude outline drawings and engravings of other animals. From a somewhat later epoch (Magdalenian, about 10,000 to 7000 B.C.) there survive a few fragments of sculpture and a number of drawings, paintings, and reliefs of animals, which often show remarkable powers of observation and technical skill. In time this style began to grow conventional. Then came a change of climate, which drove away the deer, and left the artistic race which had lived upon them to decay and vanish. Only among the Bushmen of South Africa do we find any parallel now to that first phase of man's artistic endeavours.

2. His First Promptings

How did this artistic activity begin? What first prompted some wild ancestor to model the figure of a

REPRESENTATIVE ART

woman, or one of the beasts he was accustomed to hunt? Naturally we can never be quite certain. Yet all authorities on primitive man agree that the advances he made in his art, like the improvements in his weapons and in the conveniences of life, were almost incredibly slow. No sudden wave of invention ever seems to sweep him forward. So cautiously and timidly does he progress, that even his first efforts in representation cannot well have been wholly spontaneous. They must have been suggested by something similar which he had found in nature.

3. Adaptation from Natural Forms

There can be little doubt that those promptings came from the discovery of freaks of nature, oddly shaped stones, or roots, or fragments of bone, which had some resemblance to human beings or animals. To 'touch up' these natural curiosities till the resemblance was closer still would be the next stage. Smokestains, cracks, or accidental discolorations on rocks, would easily come to be worked up, in the same way, into the semblance of living things, and so initiate the arts of drawing and painting. In course of time, the making of similar images from materials where the original resemblance was slight, or non-existent, would inevitably follow. If we accept, as I think we must 'do, this origin for the arts, we can understand at once why comparatively elaborate experiments in sculpture should be contemporary with the first rude experiments in drawing, even if they do not actually precede them;

especially in open country, where oddly shaped stones or roots might be commoner objects than stained rock walls.

4. Art and Magic

The piece of stone or wood which suggested an animal form, in its natural condition, must have seemed to its finder to be a marvel, a magical thing, perhaps even a talisman which would bring him luck in life or hunting. The possession of the image would seem to imply some connexion with the animal it resembled; it might even mean some control over that animal. That belief has survived almost to our own day. What is more familiar in stories of witchcraft than the waxen image, in the likeness of the bewitched person, which could be stuck full of pins, or slowly melted, so that its human double might suffer in the same way? The root of the mandrake thus derived a sinister reputation from its fancied resemblance to a human figure. The magical properties of the untouched natural object would soon be recognized as existing also where the natural resemblance had been improved by retouching, and then in the image which was wholly a manufactured article. This view of the origin of the arts of primitive man is supported by the fact that its subject matter consists almost wholly of things which he valued, animals which were good to eat, and fat women, as symbolizing the increase of his race. Drawings of beasts of prey are exceedingly rare.

been accustomed to watch animals, in movement and at rest, with the searching concentration of the hunter in ambush, he could never have drawn them as he does. So vivid is his mental image that in his picture the quarry often seems to live again. Not only is the general profile life-like, but the gesture of the head and the action of the legs are those of life itself-the very spirit of the animal is caught as well as its outward semblance. Sometimes the expression of life is rude, sometimes it is almost absent, from sheer lack of skill. But in the finest examples the sense of vitality is expressed with so much certainty of hand, and so sure an eye for refinements of form, that we have to wait for thousands of years before any such potent realism appears again. Indeed, when we consider representative art as a whole, we shall find the presence or absence of this sense of life, this intense vitality, an almost infallible criterion of excellence. An imperfect image which conveys this vital sensation is a work of art; the most complete representation which fails to convey it is dead and doomed from the outset.

7. Realism and Naturalism

When we study any series of these primeval works of art, we can hardly fail to notice that they fall into two distinct classes, corresponding to the degree and kind of resemblance which the artist has tried to attain. For example, the outlines engraved on fragments of bone, or on the rocks, do not aim at actual imitation of the mass and colour and substantial presence of the

REPRESENTATIVE ART

beasts portrayed. Even though the form, the spirit, and the movement of a deer be vividly suggested by the incised lines, the drawing remains only a lively symbol for a deer, not something which could, in any possible circumstances, be mistaken for an actual deer. But when the primitive artist fills in the outline of a bison with colours that recemble those of the heast itself, and strives by variations of tone to suggest its roundness and bulk, he makes an image which may so far imitate the general appearance and substance of a bison that, in a dim light, the image might almost seem to be the real animal. His art, in fact, is what we call Realism; that of the draughtsman is what we call Naturalism. Realism may be described as aiming at resemblance in all respects, so far as the artist's materials permit. is, therefore, immediately popular with the public, for it shows them something very like the things which they are accustomed to see in nature. Naturalism, aiming only at a partial resemblance, at a suggestive and lively symbol of nature, is not always so easily comprehended by the untrained eye, for a little practice may be needed to understand the symbol which the artist is using.

8. Realism and Portrait Sculpture 1

In Palacolithic art, Man had quite a subordinate place. Ever since, except in strictly Mohammedan countries, the position has been reversed. When a great monarchy was established in the Nile Valley, several thousand years after the days of the cave-

dwellers, the pride of its kings and the requirements of its religion brought about an active demand for. portraiture. Under the Fourth Dynasty, and for one or two brief periods afterwards, this art was carried to a singular excellence. Since the closest possible resemblance to nature was desired, the likeness of the sculptured heads to their Egyptian originals, already a close and careful likeness, was heightened by the addition of simple colour. The statues of Rahotep and Nefert at Cairo, and the head of Queen Nefretiti at Berlin, of a much later date, are well-known examples of the vivid and life-like effect which could thus be produced. The fine taste of the Greeks did not disdain a similar practice; it was continued by the sculptors of the Middle Ages, and even of the ripe Renaissance. It is only, perhaps, because they are frightened by memories of staring waxworks that artists do not more frequently experiment with coloured sculpture to-day. The striking bust of Colley Cibber in the National Portrait Gallery, attributed to Roubiliac, is an everpresent proof to Londoners that this particular form of realism may be far from despicable. Some ancient polychrome statues from China have a still more subtle fascination.

9. Realism and Painting

Colour, of course, is essential to all forms of realism. The painter, however, needs Light and Shade also, if he is to imitate upon a flat surface the substance, the projection, and recession of natural objects. The

REPRESENTATIVE ART

Egyptians, ignoring these factors, failed to obtain in painting the realism of their portrait sculpture. The legend of the contest between Zeuxis and Parrhasius shows that the Greeks thought differently. The one artist painted grapes at which the birds pecked; the other a curtain which his rival mistook for a real curtain. Yet the surviving relics of classical painting show no such determined effort at realism; the painters of the Middle Ages were even more indifferent to it.

With the Renaissance there eams a change. In the Netherlands the precocious genius of John Van Eyek led the way; complete mastery was attained for a moment in seventeenth-century Holland. There, Pieter de Hooch and Jan Vermeer of Delft learned so well the · secret of representing natural light and colour that their best works actually look like peeps at Nature seen through an open window. 'In Italy the 'Naturalist' school of Caravaggio had achieved rather earlier a sort of realism, but with less balance of judgment than the Dutch. Their realism, with its strong contrasts of light and shadow and a relative neglect of colour, is the realism of a darkened room, not of open daylight. Their Dutch and Spanish followers, including Rembrandt and the youthful Velazquez, show the same limitation.

Velazquez in manhood came as near perhaps to complete realism as a great artist could safely do. After him, Goya occasionally displays a singular mastery of figures seen in the reflected light of a Spanish interior. Occasionally too an English pre-Raphaelite

picture, like Madox Brown's Work, will anticipate later triumphs over effects of sunlight and vivid colour. Not until Manet's time, however, was realism once more methodically studied. Founding his art on the sombre practice of the Spanish realists, Manet introduced more, and more light and colour into his work, and so prepared the way both for the Impressionists and for the various subsequent phases of realism. These are fast losing favour. As our young people now see, ordinary realistic painting approaches so nearly to the aspect of a coloured photograph that it no longer presents any novelty to the eye. We instinctively class it with the mechanical, ubiquitous products of the camera, which are rivals, not only to realism in painting, but also to all phases of advanced naturalism which depend upon mere resemblance, and are not enhanced by the refinements of design and the almost magical effects of daylight, with which the masterpieces of De Hooch and Vermeer continue to enchant us.

10. Naturalism and Artistic Expression

Naturalism, as we have seen, aims only at a partial resemblance to nature. It might appear, at first sight, as if this limitation were a disadvantage. Experience proves it to be just the reverse. The creation of a work of art is subject to so many conditions, including the proper use of tools and materials, that complete realistic presentation is often impossible. Indeed, it is seldom desirable. If the artist is to convey his message with clearness and emphasis, he must select from nature just

the elements he needs for that message, and leave out everything else.

The simplest example, perhaps, is a pen-and-ink drawing of the type with which Punch has made us familiar. In these drawings there is no realism. Natural appearances are represented only by easily comprehensible symbols, such as a firm black outline to mark a contour, with a few more lines or spots to mark any prominent features, and perhaps to convey some appearance of solid substance or lighting.

Yet with these simple lines and spots of black upon the white paper, an artist can transmit a more vivid suggestion of life, and character, and movement than even a clever photograph could do. The photograph will inevitably contain details which are not essential to the expression of character. By these the attention is distracted, the effect weakened, the motion arrested. In the drawing, where only the essential features are given, the attention is necessarily concentrated upon them, so that the artist's meaning is conveyed with undiluted force. The swiftness of his line, moreover, may convey a sense of instantaneous movement, as the spaces between the lines may convey an effect of vivid light which no photograph can rival (Plate IV.).

In practice, almost every form of art or craft attains to success by a similar process of selection and emphasis, choosing from nature just those elements, and no more, that are needed for expression of the artist's thought. This, indeed, is one of the cardinal principles of that orderly creative process which we term Design.

11. Naturalism and Material

Again, the artist, in representing some aspect of nature, must present it in terms of the material and tools which he is using. If, in order to gain a greater degree of realism, or for any other reason, he forces his materials to produce some effect that is inappropriate to them, the result may be a tour de force, but it is artistically unsound. A slight pen drawing; such as we have mentioned, is an admirable vehicle for expressing spirit and character. But if, with the idea of rendering it more complete and realistic, it were worked up with further lines until it had some resemblance to the tonality of nature, the dominant features would cease to be distinct, and with them would disappear the spirit and the character which they formerly expressed.

Even Rembrandt, for all his genius, was not always proof against this temptation. His darkest and most realistic etchings seldom have the force and life of those in which the lines remain so clear and open that their individual character tells. Still more misguided, of course, were the imitations in marble of intricate and fragile things, like lace shawls, which used at one time to be the pride of certain Italian sculptors. Such trivial ingenuities have nothing in common with the solid and monumental quality which we intuitively expect from anything carved in stone.

12. The Value of Naturalism

Naturalism then, in some degree, whether for purposes of expression or from the need of utilizing duly

REPRESENTATIVE ART

the properties of the medium employed, is of infinitely more varied service to the artist than realism ever can be. The artist's business, as we have seen, is to create a new kind of life. That creative act, if it is to give the essential thrill of delight to the artist and through him to his audience, must involve the feeling that, for the moment at least, he is master of his subject and his materials. The out-and-out realist can rarely experience that sense of mastery. He is compelled to copy his model in all respects, to be an imitator rather than a creator. The freedom to select and arrange, which naturalism carries with it, makes all the difference between active invention and what may easily become a mechanical and servile mimicry, a drowsy acceptance of things as they happen to be. The landscape and portrait painters of a previous generation to ours were particularly apt to mistake this visual somnolence for artistic probity.

13. The Right Use of Nature

"Truth to nature", indeed, is one of those ancient maxims which must not be elevated into hard and fast rules just because they may contain a sound principle. Natural appearances are the primal source of all representative art, and if the artist wishes to inspire his own creations with life, he will not find it easy to do so without constant reference to the life in the world outside him. Whatever degree of freedom he permits himself in selecting and arranging the elements required for a new act of creation, the creative stimulus

will seldom be quite fresh and vivid if it comes to him second-hand, if it is derived wholly from the work of other artists, and is not also inspired by some thought of nature. We see this failing constantly in those who have followed the arts with more learning than independence. By their preference for some particular master or 'school' of painting they are always liable to be seduced into seeking inspiration only from what their favourites happen to have seen in nature, and not from what they themselves could find there.

All great artists, and all great artistic movements, attract into their train a crowd of less independent minds who, for the moment, may enjoy some reflection from the glory of their leaders. But when the fashion changes, the truth quickly becomes apparent. These creators at second-hand have only a borrowed and artificial vitality, which has not the stamina to stand the test of comparison with genuine inspiration. Naturalism, the intelligent discriminating study of natural appearances, is the one known specific for this fatal disease; a disease the more insidious because, as we have seen, it is peculiarly apt to attack those of a scholarly habit.

14. Classics and Romantics

The terms Classic and Romantic are so commonly applied to two distinct modes of utilizing nature, that some brief notes upon them may be useful. The term Classic is, of course, applied primarily to Greek and Roman work. From that original meaning it has come

REPRESENTATIVE ART

to be used of any art product which in its plainly organized structure, balance of parts, clear definition of form, restraint in the use of ornament, and general respect for the principles of law and order, might be taken as conforming to Greek and Roman canons. Romantic art, on the other hand, is more independent of discipline. It experiments with personal emotions rather than with universal truths, with individuals rather than with types, with what is surprising, accidental. passionate or mysterious in nature and thought, in preserence to what is calm, systematic, eternal. Even in Greek and Roman literature there is, of course, at times a strong romantic element; as indeed there must be in all supreme works of art—the plays of Shakespeare or the music of Beethoven. Life itself is a mystery, and art cannot dispense with so large a portion of its raw material. If, however, the romantic element predominates unduly in a work of art, the result will be invertebrate, vague, or sentimental; while if classic orderliness be pushed to an extreme, the result will be stiff, hard, and lifeless.

Nicolas Poussin is recognized as the typical figure among classic painters. Paradise Lost will serve as a fine example in poetry; Wedgwood Ware illustrates the application of the classic principle to Ceramics. Among Oriental works of art, a scated statue of Buddha might rightly be regarded as classic. The misty mountain landscapes of the Chinese and Japanese (for all their conformity to ancient tradition) seem to us essentially romantic. Giorgione and Rembrandt,

Turner and Delacroix, are famous names in European pictorial romanticism. Byron and Shelley were leaders of the modern romantic movement in poetry, as Wagner afterwards seemed to be in music. Yet we must remember that classic and romantic can never be hard and fast descriptions when applied to great artists. A great artist will usually seem to his own generation to be a pure romantic, if not a revolutionary. But in twenty or thirty years the novel and surprising elements in his work will have been gradually absorbed into the tradition of his art; they will have become, part of the established order of things, and so by later generations the artist may come to be ranged with the Indeed, if that does not ever happen we must assume that an artist's work contains some weakness, some want of backbone, whereby it will always fall short of true greatness.

CHAPTER III

DECORATIVE ART

1. Its Relation to Dancing and Music

DECORATIVE art, as we have seen, seems to originate from man's natural delight in rhythmical movement. the delight which finds expression in dancing and in music. What is dancing in its essence? It is a sequence of related motions of the body and limbs, which has been enjoyed and cultivated in every age, and by almost every people of whom we have any record. Its paces, gestures, and character are commonly emphasized and regulated by the accompaniment of music. Though it is often invested with a symbolic or mystical significance, the universal popularity of dancing is not due to any such variable and fortuitous associations, but to sheer instinctive pleasure in the sequence of physical activities which it involves. his movements the dancer derives the idea of a fuller and more delicious life. That vital impulse he may communicate to his audience, and thereby increase his own pleasure. He is like an actor or musician who enjoys playing some favourite piece for its own sake, but enjoys it infinitely more when he knows that he is

carrying the whole 'house' with him. The instruments of the decorative artist, such as the chisel or the brush, are naturally different, but his pleasure in his art, and that which the spectator may derive from it, are of the same kind (Plate II. a).

2. Rhythm, Sequence, and Symmetry

The dancer's activities may take two forms. At one time each movement will flow, as it were, into the next one, the whole forming a continuous series. At another time each movement will be counterbalanced by a similar movement on the part of another dancer. The former kind of dancing may be compared to a continuous poem, in which the waves of sound and emphasis succeed one another at regular intervals, varied by such minor changes as the meaning, and the poet's ear for verbal music, may introduce. These variations are allimportant. We must never regard rhythm as another term for repetition. Even a lively form, if exactly repeated a number of times, loses most of its life and freshness. The ripples produced by the wind on a lake or a pond often seem monotonous because each looks exactly the same as its neighbour. Machine-made ornament, for the same reason, is usually dull stuff. The frieze of the Parthenon, with its endless succession of similar but not identical forms, adroitly and eternally varied, yet rippling on in the same channel and at the same pace, is the perfect type of what a processional rhythm may be.

Where the movement is opposed or counterbalanced, the rhythm will resemble that of a dialogue between



1) DANCERS-CAMBODIA

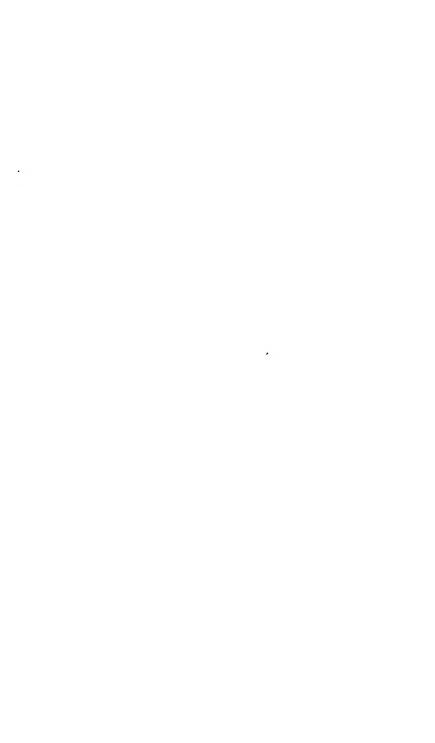




6) THE SIBYLS-RAPHAEL

ANDERSON

RHYTHMS: ORIENTAL AND CLASSICAL



DECORATIVE ART

two persons, or of cathedral music in which one side of the choir sings in answer, as it were, to the other. Any well-formed tree that grows in the open, or standing human figures, when seen from in front or behind, are familiar examples of symmetrical rhythm. ,Such antiphonal and evenly balanced forms or masses suggest no less inevitably a condition of stable equipoise than a rhythmical sequence suggests the idea of lively motion. Vertical or horizontal lines and regular geometrical forms, like the square and the circle, have something of the orderly and stable quality which symmetry brings with it. Curves, when the curve is not the arc of a circle but is subtly varied from point to point, as in all natural growths, suggests the life and motion of a rhythmical sequence. Out of the combination or opposition of these two rhythmical principles the decorative artist creates his masterpieces (Plates II. and III.).

3. The Music of Pattern

Fired by an impulse like that of the dancer or the musician, he sets about making a dance and a music of pattern, with strokes of the brush or the chisel, or any other tool which his material calls for, playing with sequences or oppositions of curves and straight lines, of strong colours and delicate colours, from sheer delight in their rhythmical properties. His pattern may or may not have some reference to the world outside him. That is a matter of minor importance compared with the necessity of endowing his new creation with a rhythmic life of its own, so that the forms and colours

DECORATIVE ART

suggest buildings, or strange growths, standing out as dark silhouettes against a fiery sunset. A heavy sinuous line may easily be associated, in the same way, with the swelling of ocean billows, or the sinister motion of a great serpent. However abstract our ideal, we shall find it difficult to escape from such association with concrete things unless, indeed, we restrict ourselves to a rigid geometrical formalism devoid of any vital rhythm. Life, after all, is the essential thing in patternmaking, as in the other forms of art, and we must not starve ourselves and our audience of this vitaminous element, just because a minute scientific analysis may reveal that it contains a few unexpected bacilli.

4. The Beginnings of Pattern

Palaeolithic man, in the later stages of his development, seems to have discovered dancing. He also decorated his rude weapons with simple patterns. But with the general advance in the comfort and stability of life which took place during the Neolithic age, pattern-making received a powerful stimulus from the craft of basket-weaving. The neolithic communities needed vessels for storing grain and other possessions. These were sometimes made from skins, sometimes from gourds, sometimes laboriously hollowed out of stone, sometimes woven from vegetable fibres, in accordance with the material which happened to be most accessible. Then the art of making pottery was discovered. Possibly some woven vessel, coated with clay to render it waterproof, got accidentally burned in a fire, and the

hardened residue was found to be serviceable. But man is a conservative animal, and when making his first pots was unable to think of them except as reproductions of the vessels they were superseding. So one group of primitive pottery will be fashioned in the likeness of leather bottles, another in that of gourds, another in that of hollowed stones, others resemble basket work. These last are the most common, and for the study of pattern are the most important too.

5. Pattern and Textiles

All weaving, even when the strands are almost identical in colour and texture, will naturally produce a sort of criss-cross or diaper pattern, and as the difference in colour and the width of the components are increased, so the pattern produced will be more pronounced. From this elementary principle the primitive weavers gradually developed a craft which was not only capable of providing an infinite variety of purely geometrical patterns, but also of introducing into them symbols of living things, such as animals and plants. These had, of course, to be translated into terms of weaving by being altered and conventionalized, becoming geometrical emblems rather than naturalistic presentations. As time went on the original significance of these emblems was gradually forgotten. They became mere decorative motives for each new weaver to copy, with such alterations as his taste or his carelessness might introduce, until all likeness to the natural form in which the symbol originated had entirely vanished.

DECÓRATIVE ART

Every student of the subject will be familiar with the extraordinary changes through which a simple pattern may deviate in the course of time.

6. Pattern and Pottery

The first stages of weaving had been passed before the potter's craft had fairly started. The potter had thus the weaver's patterns to guide him in his first attempts at decoration. To begin with, he was generally content to copy these models slavishly, scratching the wet surface of his clay with lines that resembled those of basket-work, and then, perhaps, filling those lines with some material which would give a contrast of colour when the pot was fired in his primitive kiln. After a time, he found that patterns could be more easily produced by painting them upon the surface of his pots with a brush. The brush, moreover, produced sweeping curves as well as straight lines, and its stroke could be broadened into massive and powerful forms, or refined by practise almost to a hair's breadth. There was no longer any need to keep to the rectilinear designs inherited from the weaver. A vastly enlarged range of expression was now open to the decorator's craft, and some of the earliest potters explored the capacities of the brush with so much vigour and judgment that their successors, during four thousand years of continuous effort, have rarely succeeded in rivalling them.

7. The Properties of Brushwork

The fact is that the stroke of a well-made brush, charged with liquid pigment, has an easy fluency of its

own which no other implement used in the graphic arts can equal. It produces forms more variable and more supple than any that can be drawn with a hard point or cut with an edged tool. Other implements have merits and capacities of their own, but none can rival the brush for swiftness and versatility. It is indeed the violin of the graphic arts, the one instrument which, in skilful hands, is capable of producing an endless variety of flowing melodies. The pen and the etching needle, it is true, may have a somewhat similar rippling ease of movement, but their line is too thin, and their usefulness far too restricted, for them ever to have the same universal acceptance. The other tools of the craftsman have to follow a curve or series of curves reluctantly and slowly. With a brush, a sequence of lively forms can be set down almost as swiftly as they are conceived by the artist's creative instinct, and varied at will with the most forcible starcato touches.

Only by the Chinese and Japanese have these properties of brushwork been systematically explored. With them the brush was used for writing, instead of the pen, so that from the first calligraphy was the twin-brother of painting. One of the ancient Chinese canons of art insists upon the need for rhythmic vitality, and this injunction was interpreted as applying no less to the formation of a written character than to the making of a picture. Skill with the brush thus became a national characteristic. In European art, the mastery of living sinuous line which thrills us in the painting of Botticelli, and the consummate easy exuberance of brush-work



LADIES WALKING—UTAMARO



(b) CRANES-SILK

RHYTHMS: JAPANESE

DECORATIVE ART

which we find in Rubens, will serve as examples. Too frequently, of course, both in the East and in the West, the facility with which the brush can be manipulated has enticed minor talents to pride themselves upon flourishes and tricks of hand, which have only an empty and monotonous rhythm and no real significance. But these mistakes must not blind us to the great things which the brush has done, and still may do, where a flowing sequence of movements is required, either in the region of abstract pattern or for presenting some naturalistic motive.

8. Symmetry

Where the artist is employing opposed or, as it were, antiphonal rhythms, the two forces in his design may balance one another so exactly as to produce symmetry. As forms which follow one another in a series lead us to think of an endless forward movement, so forms which plainly counterbalance one another imply an arrest of motion, that is to say, repose. Symmetry is thus most appropriate to forms of art which are intended to be restful—a great building, a monument whether carved or pictorial, or as a stabilizing element in an elaborate design. For this reason a medallion or coat-of-arms is so often used as a centre for foliated decoration. The symmetrical pattern upon an Oriental carpet helps in a similar way to emphasize its stable character. We can walk upon it with confidence. A capricious or lopsided pattern would never convey quite the same instinctive feeling that we are treading on firm ground.

The arches of a cathedral, or the square-set simplicity of an Egyptian statue, are examples of the impressiveness which symmetry can produce when used upon a larger scale (Plate II. b).

9. Balance

Symmetry involves a more or less close correspondence between the two sides of a design. chiefly needed for patterns, and other quite formal purposes. Yet a design need not be unbalanced just because it is unsymmetrical. Many of the most lively and attractive designs exert their fascination by the emphasis laid upon one scature, and that by no means a central feature. Yet we do not feel the whole to be lopsided, because the emphasis is adroitly balanced by some smaller quantity or quantities, much as a little weight at the end of the lever of a weighing machine serves as a sufficient counterpoise to the weight of a man if he be set close enough to the pivot. The artists of Japan show particular cleverness and audacity in utilizing such apparent inequalities to give a novel character to their designs.

10. Proportion

Proportion goes hand in hand with Balance. But whereas Balance is a term generally used of lateral equilibrium, Proportion applies to the parts of a design irrespective of their position in it. Due proportion depends upon the relation which the dominant factors in the design bear to the whole field of the pattern.

DECORATIVE ART

Where these factors are numerous, the adjustment of this relation is no easy matter, as the risk of overcrowding is always present. The most striking designs, and the finest examples of proportion, are usually found where the components are neither so many nor so equal as to cause doubt as to which is the predominant one, and where such richness or claboration as they may include can be contrasted with a sufficiency of surfaces that are relatively plain. Equal quantities, except when symmetrically disposed, are always confusing or monotonous: but the proportion of plain to decorated surfaces cannot be determined by mathematics. When, for example, a material has a surface that is naturally beautiful, like gold or silver, a very slight excess of ornament will make that beauty ostentatious. An austere material, like wrought iron, will be unhurt by almost any extravagance.

Personal and racial tastes differ greatly as to what this proportion should be. The Indians, the Chinese, and the Baroque artists preferred an endless riot of complicated forms, with few or no undecorated surfaces to afford rest to the eye. With this we may contrast the sparing use of ornament on a Greek temple, or in the earlier Gothic cathedrals. Architecture, indeed, is the art in which proportion is all-important, not only in this matter of ornament, but in adjusting the spatial relations which the parts of a building have to each other and to the whole mass. In London, the Banqueting House in Whitehall (now the United Services Museum) is a familiar and famous example of fine pre-

portion in building. In architecture, since the quantities and spaces are measurable, proportion might seem to be capable of reduction to mathematical formula. In other branches of art it has to be judged almost wholly by the eye. But the eye, with a little practice, aided by a little thought, should be capable of learning to discriminate between proportions that are satisfactory and those that are not, and thereby acquire some rough working principles for future guidance. There is no branch of the arts in which such a trained instinct would not constantly be serviceable (Plate I.).

11. Decoration and Colour

In decorative work Colour may be an element no less potent and valuable than Form, and will naturally be subject to similar conditions of Balance and Proportion. But the possibilities of colour are so various, and its beauty so dependent upon subtleties which lie beyond the domain of speech or mathematics, that even an elaborate treatise could not do them full justice. From the various efforts made of recent years to establish a theory of colour harmonies we may gather a few valuable hints, but in the end we must trust to our own eyes, our own senses, and our own judgment. In general, we may take the Orientals for our teachers. They have played with colour more instinctively, more consistently, and on the whole far more triumphantly than the Europeans, with a few notable exceptions. We have the stained glass and illuminated manuscripts

12. Celeur and Ferm

When we think of the most superb examples of colour which we can remember, we shall notice that in them colour is never allied to strong naturalistic shadows. The European paintings which show colour to the greatest perfection are in the nature of flushed or tinted bar-reliefs. There may be gradation, but the general effect is relatively flat, as with Oriental work. The clouding, and flamings of the finest colour have no necessary relation to the forms on which we see them. Colour, in fact, is independent of naturalism; some of its most splendid manifestations being found where the forms are schematic, as in carpets or mosaics. Hence it may be taken as a sound general principle of colouring that, if we employ a naturalistic symbol, its form must be conventionalized or simplified to the same degree that its colour is intensified. Heraldic lions in vivid vermilion are acceptable charges on a coat of arms: a naturalistic lion coloured in the same way looks ridiculous even outside a public-house. The slightness and fusion of the forms in Turner's most brilliant colour studies will serve as another instance of the same truth.

13. Colour Harmony

All thoughtful students recognize that colour should not be used haphazard, but should be governed by a colour scheme. A colour scheme involves the use of a strictly limited group of colours; harmony results from their iteration and interplay, in which respect it is analogous to rhythmic form. An opal, or the plumage of a humming bird, will serve as examples of this principle in nature. Bad colour, when it is not due to some unhappy effort to combine colour with light and shade, may generally be traced to one of two causes. Either some colour has been used which does not fuse with the scheme of the rest, or the colour itself is of bad quality. The former fault usually comes from employing too many colours at the same time, and can be remedied by working with a simpler palette. The latter fault is more serious, and calls for a little consideration.

14. Colour Quality

The power of a colour to stimulate the senses depends almost wholly upon its quality. A tone that is quite flat, and even, and smooth, has never the same life and vibrancy as a tone that is less regular; in which one atom is flushed and intense while another is delicate and luminous. From this irregularity, coupled with the internal glow imparted by their brilliant white foundation, the colours on fine Chinese porcelain derive their inimitable charm, a charm which copies or repro-

DECORATIVE ART

ductions can seldom suggest. The rough glazes upon Turkish or Persian ware, the liquid brush-work of the water-colourist or of a Gainsborough, the glittering cubes of mosaic, provide further examples. In obtaining this variety, this vibrancy, this broken texture, Time often plays a conspicuous part. Flat surfaces are gently cracked or crumbled. Bright tones are softened. Stains. adhesions, rust, patinations add mystery to colours which once may have been crude. Antique works of art often owe much of their beauty, and their value in the eyes of the collector, to such felicitous accidents. Everything depends upon the colour retaining a lively, vibrant interplay between its component particles. Where this interplay cannot take place, because the colour is too close and even in texture, the life and beauty vanishes. If the component particles are bright the effect becomes harsh and garish; if they are quiet in hue their effect will be muddy and dead. This peril dogs the footsteps of all mechanical colouring, and of . all painting that is too laboriously and closely finished. Colours must have room to move in before they can display their full plumage.

15. Colour and Expression

Colour then, in general, must be held free from the stricter laws which govern Design. There is something wayward about its loveliest manifestations which cannot be reduced to any formal system. All that the artist ccept its beauties where and when he finds keep in mind a few guiding principles such

as those which I have mentioned. He will naturally note the effect of one colour upon another, and how the potency and quality of each is affected by its neighbours. He will remember too the effect of particular colours upon the senses—the excitement of red, the stimulus of yellow, the sedative influence of grays and cool browns, -so that the spirit of his work may be reflected in his colour scheme. Where he needs force he will dispose his colours in large masses, with sharp contours and strong oppositions of hue. Where he aims at serenity the tones will be quieter and more softly blended. Where he has to deal with large expanses, as in decorating a wall, the tones will be more restful than they need to be in a miniature. There they may have the vividness of a precious stone, and will be all the better for it.

16. Decoration and Significance

The decorative side of the arts is primarily concerned with the making of rhythmical arrangements of form and colour. These, as we have seen, may have a life of their own, which can make a strong appeal to the spectator, even when the forms and colours have little or no relation to natural appearances. Fine Oriental carpets, or certain types of pottery decorated only with geometrical and abstract designs, are examples of such decorative attractiveness. For many purposes this potent appeal to the senses is sufficient in itself. But it may be fortified, made infinitely deeper and more permanent, if, to the outward sensuous attraction, the artist can add a second source of interest drawn from

representation. It is to this enrichment of design by some naturalistic motive that the greatest works of art owe their first appeal and their enduring power. Indeed, when we look at the frieze of the Parthenon or Michelangelo's ceiling in the Sistine Chapel, at the Parnassus of Raphael or the Sibyls in S. Maria della Pace, the subject matter, the intellectual conception, actually overwhelms and absorbs our attention, and we take the decorative effect almost for granted, so wholly does it seem to be the outcome and apanage of the subject as created by the artist. The pure aesthetic or decorative element seems actually to be swallowed up by interests that are of the intellect rather than of the eye. Even realism, as in the finest works of Vermeer, has been so triumphantly blended with decorative excellence as to make this latter quality appear subordinate, although in all these masterpieces the rhythmical and reprerentative quantities are so perfectly fused and combined that we cannot really think of them apart (Plate II. b).

No single formula can be invented to govern the relative proportions of the representative and rhythmical elements. Each craft, each artist, each particular piece of work, will need its own special recipe. In carpets, the decorative element must necessarily predominate. In woodwork, metalwork, and pottery, too, the artist should be cautious about giving much play to representation. In elaborate painting and sculpture, on the other hand, a naturalistic motive is usually expected, and that motive will necessarily determine the general character of the work. But if, in the effort to realize

that motive, the artist allows too much weight to the representative elements, and too little to rhythmical and decorative quality, the result will be no more than a laborious compilation, and will miss the life-creating quality of the true work of art. Our eyes are still to some extent obsessed by the vision of nature which the camera gives us, so we shall probably be wise to stress rhythmical qualities wherever we find them, lest in our search for what we think to be Truth we come to miss what, in the arts at least, is of still more urgent necessity—Life.

· 17. The Three Elements of Pattern

Before quitting this all-important subject it may be well to give a short note upon three principles which seem to be the foundation of all successful patternmaking. These are:

- (1) The Architectural Structure.
- (2) The Rhythmical Motive.
- (3) The Stimulus of Contrast.

If we keep these principles in mind, we have a very convenient formula for judging why any particular piece of decoration fails to satisfy us, and of ordering our thoughts when we ourselves have to furnish a design.

18. The Architectural Structure

The architectural side of pattern-making is concerned entirely with the disposition of the main lines and masses of which it is composed, the framework, in fact, from which it derives order, coherence, stability. Normally these qualities are obtained by giving this

DECORATIVE ART

framework a more or less formal or geometrical character, with a due regard for balance and proportion of the parts, for the shape of the surface to be decorated, for the conditions imposed by the material employed, and for the purpose to which the decorated object is to be put. Geometrical designs, however, are rarely sufficient in themselves. If they are to escape the mechanical and monotonous look of the patterns on common tiles and linoleum, they must be vitalized by some definite rhythmical motive or by some pleasant stimulus from contrasted tones or colours.

19. The Rhythmical Motive

To enliven our architectural framework with a rhythmical motive, we must dispose a portion at least of the available forms in such a series or sequence as will suggest movement. This movement may be in any direction that suits the shape and purpose of the decoration. The growth of a plant or the flickering of a flame will serve as models for the suggestion of movement upwards. The waves of the sea or the swing of a great procession will suggest lines of forward movement, the drift of leaves or falling rain will serve for diagonals. These movement-sequences have been analyzed by Professor Denman Ross in his *Theory of Pure Design*, to which the reader may be referred, since the subject, though fascinating, is far too extensive for discussion here.

We may note, however, that these rhythms may be conveniently divided into two entirely separate classes.

In the one class the lines and masses are large and rude, conveying an impression of great vigour. This treatment is particularly appropriate to rough materials and summary workmanship, such as we find in primitive, savage, and peasant art. In the other class the lines and forms are delicate, conveying an impression of grace and refinement, appropriate to the precious materials and subtlety of craftsmanship which highly civilized nations favour. Between these two extremes there are countless decorative possibilities. Refinement, because it has been commonly associated with want of spirit, appears just now to be somewhat out of fashion. The defect is one which any capable designer should be able to overcome by the intelligent use of Contrast.

The velocity and complexity of the rhythms, with the proportion which they bear to the plain structural elements, cannot be defined by any hard and fast rule. As indicated in the Introduction, they must remain matters for personal or racial preference to decide. The Indian, for example, likes a rhythm which is sinuous and involved; the Baroque artists (pp. 96-97) sought for a lively and picturesque agitation, which often appears to disregard structure, or even to defy it. The Germans incline to the Baroque vision: the finest French and English artists follow the earlier Renaissance practice, and put structure first.

20. The Stimulus of Contrast

A judicious contrast of tone or colour will impart a further clement of liveliness to our rhythmical structure.

DECORATIVE ART

For example, a few touches of solid black, if skilfully placed, will give force and spirit to a pattern in line which, without them, was ineffective or anaemic. The Japanese, in particular, are masters of such vivacious accents-we do not, I think, appreciate them enough. Colour can be employed for the same purpose. A scheme of a few simple tones, when it is foiled by one much more vivid contrasting tone at the points of emphasis, will give a much more spirited effect than the indiscriminate use of a full palette. The interchange of two strongly contrasted tones, as in a diaper of black and white squares, will produce a similar liveliness. Heraldic painting shows what an immense variety of vivid decorative effects can be produced by the contrast and interchange of no more than five pigments. Our peril indeed comes from the fact that we have practically all the hues of the rainbow at our disposal, whereas in earlier times, when pigments were few, a designer simply could not make claborate and ineffective mixtures (Plate III. a).

CHAPTER IV

CONSTRUCTIVE ART

With Constructive Art we may deal more briefly. It is so largely concerned with the particular purpose in which a thing is designed, and with the particular qualities of the materials of which it is composed, that the several crafts which it includes have each their own special conditions, and so cannot be covered by and single formula. There are, however, certain bent principles which all good crassmen recognize, ar. which the general public teo might recognize if it gard such matters a thought. That it frequently does not is proved by the false and hideous products which commerce and bad judgment still press upon us, and which many of us complacently accept.

1. Fitness for Purpose

The first of the principles which the good enforces will keep in mind is that the thing which he is males shall be fit for its purpose. This may seem to be? purely utilitarian motive, for the serviceable it of necessarily the beautiful. On the other hand, bear is a vain thing, in such cases, if it is not allied to gent? and a hurtful thing when in conflict with it.

CONSTRUCTIVE ART

ness in the constructive arts must take the first place. The craftsman must create beauty after conforming with practical requirements, and by making those requirements the foundation for his art.

For example, the architect who has to design a picture-gallery lighted from the top, must make his design out of the grand spaces of side-wall. If he has to design a block of living-rooms or offices in some crowded city, he must go to the opposite extreme; piercing his side-walls everywhere to let in air and light; till the solid parts are hardly more than vertical shafts, with horizontal bars at the floor levels, and from these geometrical elements must build up his design. The conditions of urban life are new; the architecture which conforms to them must also be new. It is no good attempting to meet them with a mediaeval formula. That able piece of Gothic revivalism, the Royal Courts of Justice, shrouded in perpetual twilight, is standing evidence of the catastrophe which results.

Again, a fine building will not only be fit for its purpose, but will show that it is so. Its appearance should satisfy us at once that it is calculated to resist every strain to which it may be subjected. A hard and massive stone, like granite, is thus well fitted to form the lower courses of a great edifice. Its massive quality at once conveys an impression of strength to the eye, and so convinces us that the upper stories are based upon a secure foundation. But when, as in so many common shop-fronts, we see an almost continuous sheet of glass surmounted by some ponderous façade of brick or stone,

we cannot help feeling that the whole thing is false and flimsy. Although we know that there must be enough iron girders and uprights concealed within to keep the whole monstrous fabric from collapsing, still it looks as if it might collapse at any moment, and that is enough to make it contemptible. Where an appearance of stability is maintained in such structures, by means of apparently solid columns, the eye is satisfied, and we are prepared to consider the building as serious architecture. Baroque architecture, too, is apt to look flimsy, when the plain evidences of sound construction have been contorted or hidden, in the effort to obtain lively movement.

The same law that governs the construction of large buildings applies to the furniture and chattels in everyday use. A jug, for instance, should be comfortable to grasp and easy to empty: when we have satisfied these primary requirements, we can think about the ornament for it. Some of the most sumptuous pieces of French furniture, such as those in the Wallace Collection, might also be instanced. There we find commodes (a quaintly inappropriate name) delicately constructed with veneers of rare wood, and then covered with magnificent scrolls of chased and gilded metalwork. Not only does the metalwork conceal the beauties of the wood, but its projections have to serve as inconvenient handles for the drawers, and with their spinous forms are admirably adapted to catch and tear the lace or the frock of any lady who might venture too near to them. Think, too, of those elaborately carved Jacobean chairs with stiff

CONSTRUCTIVE ART

high backs, topped with knobs and scrollwork just where the sitter might like to rest his head. The embossed helmets and suits of armour which became fashionable in the sixteenth century are similar instances of the decay of true craftsmanship. In spite of the technical skill they display so lavishly, they are less noble in style, as they are infinitely less adapted to defence, than the plainer practical armour which preceded them.

2. Right Use of Material

The constructive artist will also recognize that every material has an individuality of its own. There are certain things that it can do with case: there are others that it can do with difficulty, imperfectly, or not at all. The business of the artist is to utilize and exploit its peculiar capacities—the things which it can do easily and naturally. He must sternly resist the temptation to exhibit his dexterity by forcing his medium to attempt. feats which lie outside its proper scope. Etching provides a familiar illustration. It was the fashion thirty years ago for etchers to imitate the elaborate effects of tone in drawings and paintings. This involved hours of monotonous, minute, and mechanical labour, in which the peculiar genius of etching, its unique and rippling line, was entirely buried and lost. Aquatint and mezzotint, of course, were the processes which should have been employed, as the production of tone is their special function. I have already mentioned the sculptors who used to delight in carving such things as lace shawls out

of marble. Much of the Venetian glass, which at one time was so popular here, showed a similar misdirected ingenuity. Molten glass is a ductile material. The Venetian craftsmen exploited this ductility to fantastic extremes. The glass was pulled out and twisted and pleated and frilled, and tinted with this colour, inlaid with that, and sprinkled with gilding, till the result was often a contorted absurdity. The history of European porcelain is full of similar monstrous products—the show pieces of famous factories, upon which all the resources of highly finished painting and ornamental excrescence have been lavished, to no purpose except the extinction. of all true design, form, and colour. The elaborate and tortuous carving of furniture designers like Chippendale may also be quoted. The twists and turns have everywhere to cross the grain of the wood, so that pieces are liable to snap off at the slightest strain. For such intricate patterns the appropriate material would be wrought iron. Our modern furniture designers are more sensible, relying chiefly upon inlay or painting for ornament. These are not only appropriate to the spirit of fine cabinet-making, but are not fragile, do not catch in clothes, and will not harbour dust (Plate IX.).

3. Truth and Falsehood

Man is a conservative animal. When he discovers a new material he is prone to use it in forms which follow those of the material which it has replaced. So buildings in stone had a tendency to follow the style of éarlier buildings in wood. The lines painted upon

CONSTRUCTIVE ART

railway carriages followed for many years those on the horse-drawn coaches of a previous age. But the use of a cheaper substitute to imitate, as well as to replace, some more precious material is much less excusable. Shams in any guise are rightly suspect. Yet it is easy to overdo aesthetic purism. No one is really deceived when a wall-paper is printed to look like tiles, or tapestry, or cretonne. If the material so imitated is precious, we feel that the effect is shoddy, but a plain tile pattern in a bathroom is neither deceptive nor really offensive, so long as it remains clean.

Some other forms of imitation have so long been sanctioned by custom that we do not feel them to be imitations. Gilding, for example, never makes us think of solid gold. When we see it on a wall or a pictureframe we know that, for all practical purposes, it is only a sort of pigment. The old fashion of 'graining' wood was so hallowed by custom that it conveyed no deception, and gave no offence. We associate it naturally with cheapness, that is all. The use of vencers of wood or marble must also be held a pardonable counterfeiting. A rare wood or a fine marble is known as a thing too precious to be used extravagantly, as would be the case if it were employed in solid masses, and not in thin sheets laid upon some less costly foundation. Even the imitation marbles of to-day are often so decorative in quality that only a confirmed purist can really take much exception to them, when they give fictive splendour to some popular theatre or eating-house. But in any place with a grave and serious purpose, such as a church

or a great public building, their falsity would force itself upon our notice. In such places we have a right to expect nothing but the truth.

In general, then, we may take it that imitation of one material by another should be avoided in all art that has any high and serious purpose, except perhaps where, as in the case of gilding, it has ceased to be imitation. Its employment for the commoner and humbler needs of life may be pardoned most readily where it has been so sanctioned by custom that it does not deceive. Only where the imitation actually conflicts with fitness for purpose is it wholly objectionable, as when we see brittle cast iron worked into the forms appropriate to tough wrought iron, and so suggesting. a strength that is not really there. Such perversion is really no better than the making of those shoddy candlesticks and ornaments which consist of a thin skin of brass, stiffened with some miserable filling of lead or plaster.

4. Decoration and Construction

Not until he has satisfied these conditions of fitness for purpose and right use of material can the craftsman feel safe with regard to decoration. In Constructive art he cannot allow himself all the freedom which the painter enjoys. His ornament must not only be appropriate in character and proportion to the thing which he is making, but it must not conflict with its practical usefulness. The edge of a drinking cup, for instance, will not stand being deeply fluted or scalloped.

CONSTRUCTIVE ART

Recesses and projections upon glass or pottery, on woodwork or silver, are apt to become a nuisance when the object has to be frequently cleaned; and if it is something in daily use, may be no less inappropriate and uncomfortable than the chased metalwork on Louis XV. furniture, or the elaborately modelled ewers in the Cellini style. There was a time, too, when shop lettering, and that used for commercial advertisements; was made so 'ornamental' with silly distortions and flourishes that it frequently defeated its own purpose by being quite unreadable. The last twenty years, however, have witnessed a change. All over England these extravagances are becoming out of date. . . The more enterprising firms have taken a hint from the modern book printers, and use fine and simple types of lettering, generally based on Roman models, which have the double merit of being handsome and. easily read. Indeed, there seems to be a very great all-round improvement in the attitude of our eraftsmen towards the proper and moderate use of ornament, an improvement which is slowly but surely extending to our commercial products.

5. Objets d'Art

So far we have considered chiefly those forms of art and eraftsmanship which serve some practical end, but there is another class of artistic products, mostly covered by the phrase Objets d'Art, upon which utilitarian conditions cannot be so rigidly imposed. It includes such things as small carvings, statuettes, and

little works in metal, glass, porcelain, and earthenware which have been executed with a frankly ornamental purpose. Even here practical considerations cannot be entirely excluded. Such things may be a nuisance if they do not stand firmly upon their bases, or if they are covered with minute and fragile ornament, which cannot easily or safely be cleaned when dirt has once settled in it. The stability and simplicity of surface which result from avoiding these defects may have a positive aesthetic value. The work may acquire thereby a monumental character, and in spite of its modest scale may attain to dignity and even to grandeur. Good specimens of Chinese porcelain often possess these qualities; Greek vases and statuettes add an element of grace, which turns at the last to oversweetness. Many mediaeval carvings in wood and ivory exert a similar charm, and, if we admit these to favour, we may extend it to cover the best of the Dresden figurines, with their analogies from Chelsea and other porcelain factories. Trifles of course they are, but such dainty and unpretentious trifles that it would be unjust to judge them too rigorously. Indeed, if we regard these Objets d'Art in general as toys, we need not trouble too much over their aesthetic propriety. It is only when they flaunt their costliness or their elaboration that we are roused to ask whether the result is really worth all the effort which it has so evidently cost.

PART II THE PRINCIPLES APPLIED



CHAPTER V

DRAWING

1. The Uses of Drawing

This is not a history, so we need not discuss whether primitive man did, or did not, express himself by sculpture before he tried his hand at drawing. Drawing, however, has a definite claim to be discussed before the other arts and crafts, because, in some form, it is an almost indispensable preliminary to practising them. Drawing in fact is the working vocabulary of design, and, like a vocabulary of words, may be used in many ways that are not artistic. An architect's plan, or an engineer's mechanical drawing, may be quite sound in workmanship and in fitness for its purpose, and yet have no more aesthetic quality than we should find in a description of the same things in plain technical language, with the necessary measurements and particulars. Language does not become Literature until it is quickened by rhythm. Drawing requires the same vitalizing incentive before it can become Art.

When drawing is used for Representation it can only be a symbol for reality. That symbol, in addition to being lively, must also be practical—it must be intelligible both to the artist and to his audience from

its correspondence, in some degree, with their visual conception of the thing represented—otherwise it will be a mere puzzle. The hasty memoranda which artists make for their own use will sometimes have this character; being really a species of pictorial shorthand or cipher, intended for private use, and not drawings in the ordinary sense of the word. When drawing is used for a decorative or constructive purpose, this question of correspondence with nature does not, of course, arise. Such drawing has to be judged by its rhythmical quality, and by its fitness for the matter in hand (II. 10, III. 2, 3, IV. 2).

2. Palaeolithic Drawing

The relation of a drawing to man's visual conception of the thing represented is, as we have seen, an allimportant factor in Representative art. But here we are at once faced by a broad general distinction which has to be made between the eyes and mind of Palacolithic man, and the perception of all the races (other than the Bushmen of South Africa) who have succeeded him upon this planet. Palacolithic man had so accurate an eye for the silhouettes of the beasts he watched and hunted, that he was able instinctively to represent them with a straightforward verisimilitude which even to-day is continually surprising us. The Bushmen have a similar gift. Their work is less accomplished than that of the best Palaeolithic artists, but their drawing of men and beasts in unexpected, difficult, and fore-shortened poses is still more audacious (II. 6).

DRAWING

3. Neolithic Drawing

Neolithic man did not inherit this keen and comprehensive vision. He was only able to see things piecemeal, so he put together deliberately his fragments of observation with but little regard for actual appearances, but with much regard for plainness of statement. this the child of to-day is at one with the ancient dwellers in Mesopotamia and Egypt. The Egyptian fits a front view of the body to a head, legs, and feet seen in profile. The result may be incongruous, but it represents each part of the body in its plainest and most unmistakable aspect. A child, in similar fashion, depicts a man by drawing a face as a circle or in profile, with little or no body, and a line to serve for each of the arms and legs, yet the five fingers, and probably the toes, will be clearly indicated. The whole is in no sense a likeness. It is a rude symbol, made up by combining several quite separate and very imperfect mental images, but it is typical of the way in which Neolithic man, and we, his descendants, have to learn to draw.

4. Greek Drawing

Even the gifted Greeks were unable for centuries to get rid of this Neolithic manner of visualising natural appearances. The drawings on all their earlier pottery (the single form of art by which we can now estimate their skill as draughtsmen) follow the Egyptian mode, though they employ it with infinitely greater freedom and decorative power. It is only after repeated efforts



DRAWING

manuscripts, the mediaeval crastsman was continually hampered by the want of a cheap material upon which to make his studies. Not until paper was introduced to Europe from the East, during the fourteenth century, could the draughtsman achieve independence. and Florence in particular, took the lead, carrying on with enthusiasm the study of the human form, to which the Revival of Learning gave a new importance. The pen and the brush were the favourite implements, the drawings being frequently made on toned paper, upon which the lights were touched in with white. Where exceptional delicacy was desired, a silver-point was used upon a sheet of paper washed with zine white. Thereby was produced that clear gray line which we often notice in the drawings of Leonardo and the youthful Raphael. Then, at the beginning of the sixteenth century, men's thoughts became occupied with solidity, projection, and force of effect. The more delicate methods of drawing had to be discarded in favour of vigorous pen-work and black or red chalk, which thenceforward became the processes in common use all over Europe.

6. The Value of Drawings

The extraordinary value attached to these drawings by artists and collectors can be explained quite simply. In them we seem to see the artist at work, with no intervening middle-man, or complexity of technique, to obscure the image of his personality. Every line, like a living thing or an atom of radium, seems to store, and still to emanate, those sensations of power and tenderness and insight which the master himself experienced as he traced it long ago. Painting is a less direct method of expression. Itselfects are built up by a series of processes which the untrained eye may not follow, so that the artist himself appears to us as a remote and my terious being behind the well of his technique. Only in a drawing a thing done directly by his own hand, are we brought into immediate contact with its maker's very spirit.

7. Mad. et Red Chall.

Among the numerous materials employed for drawing, black and red chalk have some claim to be considered first. They place a great range of expression at the artist's disposale force, when the stroke is firm; precision, when the point is fine; breadth and softness of gradation, when the side of the chalk rather than the point is employed. So chalk is constantly and grandly used by the great Italians of the Renaissance. Leonardo. Raphael, Michelangelo, Correggio, and Tintoretto among them; by Dürer and Holbein in Germany; by Rubens and Van Dyck in Flanders, and by their artistic descendants Gainsborough and Watteau-Watteau the virtuoso of the craft, who combines black chalk and red chalk and white chalk till they suggest the most subtle and enchanting colour. In modern times this fine medium has fallen into regrettable disuse, owing to the popularity of other sketching materials.

8. Lead Pencil

Of these the lead pencil is perhaps the favourite. A point of natural plumbago was often employed in

DRAWING

seventeenth-century England for the making of miniature portrait drawings, and in Holland as a foundation for work in water-colour. This latter practice became general; then in the 'nineteenth' century the convenience of the pencil for sketching, with or without a wash of colour, became recognized everywhere. Menzel in the Germany of the seventies, Augustus John and Muirhead Bone among living artists, have been its most brilliant exponents. Some portrait heads by John, in the style of Italian silver-point drawings, will bear comparison even with the Renaissance masterpieces which inspired them. We may agree, too, that for rapid notes on a small scale, as Turner's sketch books indicate, the pencil is unrivalled. When used for more elaborate work its texture is apt to become shiny and monotonous.

9. Pastel and Charcoal

These soft materials give richness of tone and atmosphere, at the cost of crisp definition. Charcoal is useful for broad indications of masses of light and shade, but the result seldom gives permanent satisfaction, perhaps because it is obtained so readily. Pastel, in the same way, is tempting. It is capable of suggesting the most powerful and luminous effects of colour, but the apparent ease with which these effects can be produced, and altered, is apt to entice the pastellist away from the structural aspect of what he is doing, so that the result becomes flabby and invertebrate. But if the artist happens to be a scrupulous draughtsman with an instinct for design, his natural talent will easily

resist and overcome this danger, as we see in the superb pastel studies by Degas.

10. Pen and Wash

The crisp and vigorous character of a line drawn with a pen was quickly appreciated. The early Italian masters constantly used the pen to emphasize contours, and mark decisive features in drawings made with other materials. Broader points and more constructive strokes were employed by Michelangelo. Claude and Rembrandt widened the capacities of pen-work still further by using it as a foundation for washes of bistre or Indian ink. Claude in particular delights in allowing his pen lines to melt into the bistre wash, so that the effect "is like looking into a crystal of topaz or a cairngorm pebble". With Rembrandt, a far greater draughtsman, not only rapid sketches but grave and important designs are entrusted to the medium, and with complete success. Indeed, no other process attains with quite the same appearance of ease almost all the qualities, except colour, which an artist needs. Power and delicacy, mystery and space, together with movement and light and atmosphere, all can be rendered by pen and wash. Finally, in the eighteenth century, Tiepolo came to give the medium a finishing touch of virtuosity, of liveliness and sparkling accent, much as Watteau had done just before with chalk drawing.

In the nineteenth century pen and wash fell into disuse. Reproductive engraving could not, economically, follow the infinite variations of tone which the

DRAWING

brush-work involved. A clear line was called for. The pen had to be used by itself. The result was a harder style, more notable for spirit than for subtlety. A few fine artists, like Charles Keene and Rossetti, could evade or defy these limitations. Others, like Phil May and Caran d'Ache, and their witty successors of to-day, have accepted them, and used them delightfully in their drawings for the popular press. So the grand tradition of pen and wash still remains in partial eclipse. But its applications are so wide, and the results it has already produced so remarkable, that we may be sure of its reappearance in splendour when an artist is born among us who is great enough to use it.

11. Brush Drawing

As we have already discussed the capacities of brush drawing (III. 7) we need not again insist upon its uncommon expressive power. The earlier artists of the Renaissance were so intent upon precision of form, and so accustomed to the cautious technique of illumination and tempera, that they did not allow themselves a free hand with the brush, but employed it with the same scrupulous care that they gave to the pen or to silver-point. Claude was the liberator. He handles the brush, often on a pen-work foundation, with a swiftness and freedom unparalleled till our own time, so that fleeting effects of light and shadow are noted with the utmost vivacity. Rembrandt, too, exhibits a similar freedom with still greater power.

But Europe in general must yield priority to China and Japan in the consistent practice of brush-work. There the brush has always been the artist's ehief implement, and brush drawings, often on a large seale, by the painters of China and Japan combine vigour, spirit, and delicacy to a degree unmatched elsewhere. Also, until quite recently, the Orientals have been untouched by the passion for realism and projection which has dominated the European artistic temper. Their drawings and paintings thus remain symbols, as drawings ought to be, and never attempt to be imitations of natural appearances. Yet these symbols are inspired by a feeling for nature so large and so sensitive that we hardly feel the absence of solidity, so deep is the impression they eonvey, so admirable their decorative quality. They include traditional and racial conventions which do not appeal to Europeans as they do to a native audience—and of course reveal inequalities of taste and talent as with our own artists-but the finest Chinese and Japanese brush drawings show a spirit, a sense of design, and a feeling for the medium which deserve far more serious study than they commonly get.

12. Water-Colour

The illuminators of the Middle Ages were familiar with the use of colours tempered with water in which a little gum or honeyserved as a binding material. Though this simple process produced delightful effects, it could not come into general employment until paper had been invented. Dürer was one of the first to use it

for studies of landscape and natural objects. A little later the miniaturists of Persia and India became famous, and occasional specimens of their art were brought to Europe. In England the portrait miniature started with Holbein and Hilliard, and continued to flourish for two hundred and fifty years. In the Netherlands water-colour was a popular medium during the seventeenth century, both for figures, as with Avercamp and Van Ostade, and for landscape, as with Van Dyck—a master of the craft.

The eighteenth century witnessed the rise of English water-colour landscape. It began with topographical drawings in pencil and Indian ink, which were tinted with pale colour. The broad tones of gray in these drawings produced wonderful effects of restful space and atmosphere, as the drawings of J. R. Cozens indicate. Then the example of Girtin and Turner led to the use of stronger and richer hues. With Turner, the passion for space and brilliancy increased as time went on, until his drawings became vaporous dreams of light and air, and flushing, palpitating colour, colour far more like that of some rare jewel or precious stone than of anything which ordinary eyes can see in nature. In this idealism Turner stood alone. The general bent of the age was naturalistic. Constable, De Wint, and others developed the sketch from nature on lines which have not materially changed for a hundred years or more, so well adapted was their method to interpret the fresh colour and ever-varying moods of English landscape.

Blake, Cotman, and Rossetti were exceptions. Blake

used water-colour with astonishing vigour and freedom · for imaginative subjects and supernatural illumination. Cotman, founding his art on the broad style of Girtin, brought to landscape a sense of rhythm that was almost Oriental, and a classical simplifying of forms and masses like that which we admire in Poussin. Rossetti, by far more elaborate processes, analogous rather to those of painting than to those of drawing, inspired water-colour with a mediaeval intensity of expression, design, and richness of hue. But the educated judgment of to-day is adverse to such complexities, and indeed to all the efforts that have been made to impose upon watercolour the substance, and the deliberated 'finish', of paintings in oil. The simplest use of the medium is unquestionably the right one; the making of straightforward drawings, in which the limpid quality of the untouched colour-wash and the rhythmic expressiveness of the brush stroke are retained, emphasized, and turned to account. 'Body-colour', in the form of opaque white, is apt to interfere with this fluency of brushwork, unless it be handled by a Van Dyck or a Turner; though it is so helpful in producing certain effects of atmosphere and colour, as well as for small retouches, that it cannot be wholly condemned. It shows to conspicuous advantage when employed on a miniature scale, whether by the illuminators of England and France of the thirteenth and fourteenth centuries, or by their rivals, some two hundred years later, at the court of Jahangir, the one group no less notable for fanciful vigour than is the other for chivalrous refinement.

CHAPTER VI

ENGRAVING

1. The Forms and Uses of Engraving

Though the making of a design upon any surface by means of incised lines or dots or spaces must be termed engraving, the word is specifically applied, in a narrower sense, to describe the processes whereby such incised designs can be multiplied by printing. These processes are classified according to the material-wood, stone, or metal-upon which the design is worked, and may be further subdivided according to the tools and methods required. The purpose for which the engraving is made necessitates a third form of division. An engraving may be produced solely from the artist's desire to express himself in that particular way, or it may be made to reproduce or interpret a painting or some other work of art. In the former ease we usually speak of the print as an 'original' engraving or etching, as the case may be; in the latter we call the result reproductive. we shall see, the reproductive engraver is forced by necessity to make his medium imitate another one as closely as possible, regardless of the natural qualities that his medium possesses. He thus tends always to

pervert it, and the perversion usually gets more flagrant as his accomplishment increases. It is only with 'original' engraving (and not always there) that the true tradition of the craft is respected.

2. Wood Engraving

In the East, and in Europe during the Renaissance, a sharp knife was used for engraving upon a smooth surface of soft wood. The knife, cutting along the grain, hollowed out the parts which were to be light, so that the parts which were to be dark were left in relief, to be inked and printed, either in a printing-press, or by rubbing with a pad, the Oriental practice (Plate III. a).

Wood engraving is thus, in its essence, a process of cutting out lines or spaces of light from a dark ground. But almost all former wood-engravers (except a few Florentine illustrators, William Blake, and the Japanese) have been seduced by the desire, or the commercial necessity, of reproducing designs drawn with the pen. In this respect, even such noble prints as those associated with Dürer and Holbein are out of accord with the true spirit of the medium. Had the designs been made with white on some dark ground, they would have been appropriate to wood cutting. As it is, in the effort to reproduce pen-work by cutting away the innumerable little intervals between each line, there has been a lamentable waste of labour and skill.

The perversion was carried still further when hard box-wood was adopted as the material for wood blocks, and a sharp-pointed graver replaced the knife as a cutting tool. The work so produced could naturally be much more minute than anything done by the older method. Wood engraving in consequence became the popular form of illustration during the nineteenth century, and, in the case of our English "Illustrators of the Sixties", produced some wonderful interpretations of contemporary pen and pencil drawings. Technically, however, even these were a perversion, so that we cannot altogether regret their supersession by the photographic process-block.

The modern artists who have revived the craft recognize its true character. By utilizing the long sweeping curves which the knife so readily cuts, and the masses of strong tone which economy in workmanship leaves, they produce results which are admirable in every way. Since the right use of the medium has no long tradition behind it, there still seems plenty of room for those who wish to develop it on original lines—an advantage which some other revivals do not so obviously possess.

A word must be added as to the use of wood engraving for colour work. In this the Japanese are far in advance of Europe. They print from multiple blocks, with a technical resource and an audacious daintiness from which the whole artistic world, during the last sixty years, has derived no little profit. These prints provide the best possible lessons in colour harmony, showing how individual tints which seem brilliant to the verge of crudity may, by adroit repetition or juxtaposition, be made part of enchanting colour scheme,

quite apart from the infinite fancy—the variety of ingenious or imaginative design—with which these popular products are continually surprising us (III. 13).

3. Lithography

The process of engraving from stone is hardly a century old, and is generally employed for purposes which are commercial rather than artistic. Yet many artists, from Goya to Whistler, have used it occasionally and with distinction, while the genius of Daumier made it for a short time a most powerful weapon for political satire. But the quality of tone which the stone generally gives is lacking in richness, so that lithography has never enjoyed the same popularity as other forms of engraving. It has also been used for reproduction in colour, and it is possible that this form of the craft might be turned by an expert to artistic advantage, though the colour effects obtained from wood blocks have hitherto shown a much finer quality.

4. Engraving on Metal

While the wood-engraver is really cutting out lights from a dark ground, the engraver on metal is doing just the opposite. Every line or dot or space which he hollows out upon the metal surface is filled with ink by the printer, and comes out dark in the proof, while the untouched areas between them are wiped clean, and print as lights. Engravings on metal may be divided into two groups. In one the incisions are made with a tool, as in line engraving and mezzotint; in the other

ENGRAVING

they are bitten out of the metal by means of an acid, as in aquatint and etching. Copper, at once soft and tough, is the metal commonly employed. Steel became fashionable for a time, but ceased to be used when it was discovered that copper could be coated, and recoated, with a thin film of steel, and so be endowed with almost infinite durability in the printer's hands.

5. Line Engraving

The line cut in a copper plate by the engraver's V-shaped burin has a certain noble precision. Some force has to be used to produce it; much care is needed to control the point and keep it from slipping. The curves which result have thus a firmness and austerity which go well with designs of a classical type, but which are unsuited to the freedom and mystery of any romantic style. Martin Schöngauer was the first to discover and exploit these capacities; soon they were magnificently, developed by Dürer. In Italy Marcantonio, working chiefly on designs by Raphael and others, used the craft with conspicuous distinction. Then line engraving became popularized as a means of reproducing pictures, and its unique quality of line was obscured in the effort to interpret subtle modulations of tone. Some French portraits, like those of Nanteuil, and some English landscapes of the Turner epoch, are chefs d'œuvre of their kind, but, as with wood engraving, photography at last put an end to the need for such reproductions. As with wood engraving, too, this change enabled our English line-engravers to

return to the primal tradition of the crast, with results that are already remarkable (IV. 2).

6. Dry-Point

The quality of line engraving depends upon the ink which is left in the furrow cut by the burin. In its passage the tool turns up rough edges of metal, but these are removed before printing takes place. If, however, a design is drawn firmly upon a copper plate with a diamond, or some other very sharp point, and the rough edges of the lines are not removed, this roughness, or 'burr', will hold a great deal of ink, which prints off as a soft velvety black. Rembrandt employed dry-point superbly to enrich the contrasts in his later etchings. His large prints of The Three Crosses and Christ Presented to the People remain unsurpassed examples of the practice. During the last century dry-point has been revived, with notable success, both in England and in France, but it is a somewhat extravagant method. Only a few fine impressions of each plate can be taken, as the burr wears away rapidly in printing. So dry-point, in spite of its dramatic force, is a process which can generally be enjoyed only by collectors of expensive rarities, and those who have the leisure to haunt museum print-rooms (III. 20).

7. Mezzotint

The copper plate used for mezzotint is first worked all over with a steel tool, till it is covered with minute points of metal which hold ink, much as does the burr

ENGRAVING

lest by dry-point. If printed in this state, the plate would yield an intense and uniform black, but the engraver, by scraping down the roughness in varying degrees, is able to produce a complete sequence of tones from black to white. The scraping is a much more laborious process than one would think, but the results attained in rendering certain forms of painting are so superb that mezzotint has remained in favour for two hundred years or more. The portraits engraved after Reynolds, and the landscapes after Constable and Turner, are justly famous. No other 'tone' process is so rich, so strong, and so sensitive. Stipple engraving, where the tone is produced by dots, is altogether feeble by comparison—fit only for the flimsy colour-prints in curiosity shops. Aquatint, as we shall see, is comparatively hard and flat. Mezzotint, indeed, is such a noble process that we may regret that its use is limited by the considerable initial cost of preparing the plate, and it is the single form of engraving that has achieved conspicuous triumphs in interpreting paintings in oil, without sacrificing one single atom of its natural character (IV. 2).

8. Etching

A metal plate (usually of copper) is covered with a coat of varnish. A design is scratched upon it through the varnish; the plate is then immersed in a tray containing a mordant acid. The acid bites into the metal where it is exposed by the scratches, and the design so incised is printed much as a line engraving is printed.

That, in brief, is etching. The etcher's needle can move swiftly and freely over the smooth surface of the varnished metal, so that its line possesses unusual spirit and flexibility, responding as it does to the lightest touch of the artist's fingers. Extreme force may be attained by exposing the metal to the acid for a considerable time, so that the lines are bitten deeply; extreme delicacy by making the exposure a short one. Moreover, the line which the acid bites is not like the smooth channel left by the burin; it has the picturesque irregularity of an eroded water-course. Etched lines thus exhibit a character and a vitality which have rendered etching the most popular of the various processes which have been revived during the last century. Rembrandt, of course, is its supreme exponent; Dürer, Van Dyck, and Canaletto in their several ways used it admirably. Goya, Méryon, Seymour Haden, and Whistler were pioneers in more recent times.

In Rembrandt's mature plates the lively quality of the line is accented. The individual strokes are used with the utmost economy, making a vibrant contrast with the spaces of white paper between them, so that they suggest form, and movement, and dazzling light, to a degree which no other artist has attained. In his experiments with the medium, Rembrandt also used it to produce effects of tone, by which the linear quality was obscured. Such obscuration became very general some forty years ago, when etching was a popular method for reproducing paintings in oil, and even such things as Chinese porcelain. That misuse, like the



REMBRANDT: THE ENTOMBMENT. (FIRST STATE)



ENGRAVING

similar misuse of line engraving and wood cutting, was finally suppressed by photogravure. All our good modern etchers respect the lively linear tradition of the medium, and, like our engravers and our draughtsmen, are doing work of a quality in which we may well take pride (II. 11, IV. 2 (Plates IV. and V.)).

9. Aquatint

If the coat of resinous varnish upon a metal plate does not form a continuous sheet, but is in some way covered with minute reticulations or interstices, evenly distributed, these intervals can be bitten into the plate by immersion in acid, with a result which, when inked, will print as a tonc. The tone can be increased in strength by prolonging the immersion, and its area limited by the use of varnish, to protect from the action of the acid the parts which are to tell as lights or half lights. The tones thus produced are rarely subtle, and never very rich; the forms, since they have to be mapped out upon the plate with a thick varnish, will tend to breadth rather than refinement. But one artist-Goya-has used the medium with such notable effect, as a supplement to the etched line, that the combination deserves to be remembered (IV. 2).

CHAPTER VII

PAINTING

1. Purposes and Tradition

- Paint is applied to many substances for many different reasons, but the use of it to which we must confine ourselves in this chapter is that of painting pictures, wherein things, natural appearances, or ideas are presented upon walls, canvases, panels, and similar flat surfaces, or upon the gentle curvature of a dome or vaulted ceiling. Painting as applied to china and pottery, to carved woodwork or metalwork, or to sculpture, is not an independent art, and lies outside our present province. Nor need we consider processes like encaustic, of which the relics are few and the methods unknown. The province of Painting is already wide enough. .It ranges with almost every vital phase of human thought; it extends from the frontier of Architecture and Sculpture almost to that of Music; it has been occupied by many of the greatest of human kind; and yet includes so much unexplored territory that even a long chapter cannot summarize its features and possibilities.

We may begin by considering the principal methods

PAINTING

and mediums which painters have used: then the various purposes to which the art has been turned. Next, we must study the large principles which have guided painters at different epochs, and form what is commonly termed Tradition. Lastly, we must observe how that tradition has been moulded and modified by individual artists to serve their own personal ideals, in the hope that we may learn to draw a just distinction between a praiseworthy freedom, an unreasonable asceticism, and a perilous license. This is the vital problem of the day. All around us principles and theories are in a state of disintegration, and we can neither hope to produce good pictures, or to form correct judgments about the painting of others, until we have found some sort of a solution to it.

2. Fresco

The oldest method of painting proper is Fresco, whereby a wash of colour is applied to a plastered wall. In the simpler forms of the art the colours are applied to dry plaster, sometimes being partially absorbed, at other times remaining on the surface as a sort of impasto. This latter method was often employed by the Greco-Roman decorators, but the more general practice was to use the colour in a much diluted form, so that when spread on the white plaster it had a transparency analogous to that of a water-colour wash on paper. For any finished work, the plaster ground had to be carefully prepared by means of successive coats of material, the final coat being of the finest substance, and the most

77 н

minutely ground, to provide a smooth and luminous surface for the painter's brush to work upon. The Italians of the early Renaissance, in developing the art of fresco, aimed at a complete incorporation of the pigment with the plaster foundation, so that the coloured surface might not flake off, but become an actual part of the wall. To obtain this result they worked upon the final coat of plaster while it was still damp, spreading only just so much of it as could be covered in the day's painting. When once the plaster was dry, retouching in tempera was possible, but the result was neither satisfactory nor permanent. So the fresco-painter was compelled to work with decision and forethought, since a mistake once made could not really be corrected, except by cutting out the whole passage and relaying the plaster ground. Speed was needed as well as decision, for the plaster might dry before the work was finished. Being compelled to conform to these conditions, the Italian fresco-painters of the Renaissance developed a largeness of style and a certainty of hand for which elsewhere there is no parallel, the necessities of their craft encouraging the expressive powers of brush-work (III. 7) to an uncommon degree. The few relics of Chinese fresco-painting which are at present known to us exhibit a similar mastery.

Though fresco is liable to decay quickly when exposed to impure air or an unsuitable climate, in favourable conditions (as we see in Central Italy) it may retain its quality for hundreds of years. As a medium for wall decoration it has other merits. It

PAINTING

becomes at once an actual part of the wall surface, and so harmonizes naturally with its architectural setting. Moreover, it retains this harmony under almost every variety of treatment, whether the scheme be one of simple flat decoration, or where the effect is sculpturesque and three-dimensional, as with Michelangelo and Raphael (Plate II. b).

3. Mosaic

In this respect Fresco contrasts abruptly with Mosaic, the art of making pictures out of little cubes of stone or glass. The Romans of the Hellenistic age were the first to make general use of mosaic for patterns on their floors, and occasionally for pictures on walls. The well-known mosaic in the Naples Museum, representing the meeting of Alexander and Darius at the Battle of Issus, is by far the most elaborate specimen of this craft in the classical epoch, and shows what a high degree of verisimilitude a skilful craftsman could, attain in imitating the effect of painting with little cubes of marble. In the Byzantine period, the process was notably enriched by using little cubes of gilded or coloured glass, to supplement or replace the quieter colours of natural stone, and with this enrichment the intrinsic properties of Mosaic came to be more carefully studied. It was recognized that imitation of the delicate tonality of natural appearances could never be obtained completely, and could be attained, even in part, only by an elaboration of workmanship which was tedious to practise and ineffective when carried out.

The medium was seen at its best when its capacity for gorgeous colour was allied with large austere rhythm and rich glittering detail, as we see in those majestic figures, set against backgrounds of gold or deep ultramarine, which delight us at Torcello, Ravenna, and Rome (III. 12).

Mosaic, in fact, is essentially a decorative art, with exceptional potency in the matter of colour. The juxtaposition of little cubes, of similar but not quite identical colour quality, endows the individual tones with a vibrancy and variety which no other method of work can rival (III. 14). The attempts which have been made, and are made occasionally even now, to endow mosaic with a representative and realistic character have never really succeeded. The stately and sumptuous character of the medium vanishes, and the result is crude or coarse compared with painting. In the matter of permanence mosaic has the advantage over all other mediums. Pigments may fade, darken, or become detached from the ground upon which they have been laid, but cubes of coloured glass or stone will last as long as the wall or pavement into which they are comented.

4. Tempera Painting

Fresco and mosaic are naturally adapted to the decoration of large wall-spaces. For work on a smaller scale, where more delicate manipulation was appropriate, the processes generally classified as 'tempera' painting were the first to come into general use. In

these processes the colours may be 'tempered' with gum, or size, or egg-yolk to serve as a hinding medium, but in current phrascology 'tempera painting' is usually restricted to work done with egg-yolk as the dilnent. To obtain the full value and brightness of the colours, it is essential that they should be laid upon a luminous ground of white gesso, the best form of which is made with slaked plaster of paris and parchment size. This ground may be applied to canvas, linen, or a smooth panel of wood. The colours are mixed with yolk of egg, usually diluted with water, and when applied to the gesso surface they dry so quickly that one brush stroke cannot be fused with another. The individual touches and washes of tempera look thin: solidity can only be obtained by degrees. The intervals between the brush strokes must be filled, as requisite, by stippling: the tones must be strengthened by repeating washes of colour, one over another. If these conditions are rightly observed, tempera painting may have a luminosity and freshness of colour which no other medium produces, as we see in the works of the Florentine and Sienese painters of the fourteenth and fifteenth centuries.

But the process imposes certain very definite limitations upon the artist. In the first place, a complex tone cannot be mixed on the palette and applied to the gesso without producing a muddy result. Subtle and complex colours can only be attained by washing one pure tone over another, until the resultant gives the desired effect. Again, since each tone depends for its lumin-

osity and quality upon the light reflected through it from the white gesso below, it is difficult to make changes or experiments as the work proceeds, except by total erasure and repainting. The design must be determined at the outset, and its main features marked out upon the gesso with firm outlines, to which the subsequent work must conform. The tempera painter, therefore, must be sure of what he intends to do, and must think out, in advance, the various stages through which his idea must pass on its way to completion. As a means of training a student in design, tempera is thus no less salutary than fresco; it has also the natural advantage of being applicable to work upon a moderate scale, and in bright tones which suit ordinary interiors.

The tempera painter cannot well be a realist. His medium does not readily lend itself to the interplay of subtle half tones and reflected lights, which are essential to exact imitation of natural phenomena. He must restrict himself to a more formal rendering of things, as if his work were a kind of coloured bas-relief, and rely for effect upon the spirit of his design and the beauty of his colour. This colour may be enhanced by varnishing, and the picture when thus finished will remain permanent if kept in a reasonably warm, dry atmosphere.

5. Oil Painting

When exposed, however, to the cold and damp of Northern Europe, tempera paintings did not always

stand the ordeal, so various methods of protecting them were tried. The tempera would sometimes be covered with a coat of very thick varnish, which gave the paint shelter, but dimmed its brightness. In other cases oil or varnish were mixed with the egg medium, to give it greater binding and damp-resisting power. Modern research all tends to the belief that these mixtures or emulsions were widely used. The clarification of the oils and varnishes required for such experiments was perfected by Hubert Van Eyck, who seems to have dispensed with the egg medium altogether, and to have instituted the Flemish practice of painting with oil and varnish only. When laid on a gesso foundation, the colours ground or diluted with his perfected materials had a jewel-like depth and richness which tempera could not attain. Also, they dried more slowly, so that a tone could be fused with its neighbour, or modelled in situ, enabling naturalistic effects of light and relief to be rendered with comparative ease.

The fame of the early Netherlandish masters soon spread to Italy, and much of their method was learned by certain Italian painters, among whom Antonello da Messina was the most conspicuous pioneer. His example led Giovanni Bellini at Venice to graft the new oil-varnish technique upon the older tempera groundwork. By starting his pictures with tempera, and then enriching this luminous foundation with films of oil paint, Bellini and his scholars evolved a style which in radiant beauty of colour has never been surpassed. But Bellini's precise and 'scrupulous methods were too

gradual for the next generation under the leadership of Giorgione, Titian, and Palma. The tempera foundation was gradually dispensed with; the pigment soon was applied with larger brushes, and with far more solidity and force of handling than earlier practice had allowed; so with Titian, Tintoretto, and Paul Veronese the craft of painting in oil came to be substantially that which lasted till the latter part of the nineteenth century.

The oil most generally employed was linseed oil, but its properties were not always fully understood; notably its tendency to grow dark and yellow, if used in quantity, and not bleached by exposure to strong light. With the general adoption of the oil medium, a heavy look comes over the face of painting. So long as tempera remained in general use, paintings were luminous in tone. As oil came to be employed to enrich them their tone deepened, and with Leonardo da Vinci, at the end of the fifteenth century, the depth turned to blackness. In the seventeenth century that blackness was made a virtue by Caravaggio and his 'Naturalist' followers, whose example infected most of Europe, including Spain and Holland. Only in Flanders was the danger recognized. Brueghel, in the sixteenth century, proved that the old Van Eyck method, of painting thinly in oil upon a transparent ground, could be used with far greater breadth and freedom of brush-work than the early masters had attempted. Then came Rubens, enlarging still further the scope of the transparent method, and so alive to the tendency of oil paint

to grow dark and yellow that his pictures, and those of one or two of his followers, still retain much of their pristine brightness.

The ideals of the nineteenth century, including the passion for effects of open air and blazing sunlight, could not be satisfied with these traditional uses of oil paint. Turner, in his final period, obtained extraordinary effects of light and colour by working very thinly upon a solid ground of white; Constable by applying sweeps and spots of pure pigment fresh from the tube, and therefore containing only the oil in which the paint had been ground. This practice was emphasized by the Impressionists, who used little or no oil as a diluent, but worked with spots and strokes of solid colour, some going so far as to squeeze out their pigments upon blotting paper to remove all superfluous oil. This method was not without danger, as the paint thereby might easily be deprived of the substance by which its particles were united, and made too dry and friable for permanence. A more reasonable practice was that of Manet, who, by executing his pictures alla prima, and obtaining with a single simple coat of paint the exact tone which he desired, was able to work with a minimum of oil, and so preserve freshness of tone.

Yet while we recognize the preservation of this freshness and luminosity to be most valuable, in so far as it bears upon the decorative beauty of a picture, we must recognize also that there are beauties of expression, of tone, of substance, of brush-work, which cannot be obtained except by more complex methods and a much

PAINTING

the decoration of private houses—works which may generally be classed under the heading of 'Cabinet Pictures'.

The third kind of painting is in reality a hybrid, which aims at combining the scale and public interest of the former class with the intimacy of the latter. Starting in the seventeenth century with pictures painted for the palaces of princes and nobles, and continued during the eighteenth century as a decorative luxury, it gradually changed its character when annual exhibitions of painting came into fashion all over Europe. The result was the exhibition picture, an effort on the part of the artist to attest his powers on a grander scale than the cabinet picture admitted, and perhaps to court favour by some obvious popular appeal. Being too cumbrous for a private house, and being generally unsuited to any scheme of decoration for a public building, it found a natural home in public art galleries. Yet the passage of time does not encourage the belief that the vast majority of these 'gallery works' can ever hold a permanent place among the world's artistic treasures. Being usually the products, not of deep conviction, but of some momentary phase of ostentation, they contain little, except possibly their accomplishment, to detain the spectator, when once the fashion which gave them birth is out-moded or forgotten.

7. The Traditions of Painting

As we have seen, the paintings of Palaeolithic man may have had some sort of magical purpose. Those of

Neolithic man, and his successors for nearly four thousand years, were produced for kings, priests, and cities. Not until the Hellenistic age were paintings (other than wall decorations) commissioned by private persons; not until the seventeenth century did such commissions become a general habit, with the 'cabinet picture' as the result. The great ancient traditions of painting are thus founded upon despotic and religious art. The cabinet picture, being a comparatively recent growth, has never been so thoroughly analysed. These traditions pass through regular cycles of growth and decline. They start with simplicity and severity, which is gradually enriched by knowledge and experience. when the art has reached its climax, Rhetoric takes the place of Conviction, and the tradition is overwhelmed and buried under calligraphic flourishes or ostentatious posturing.

The object of despotic and hieratic art was to teach the common people something about the power of a state, a monarchy, or a religion. The first duty of the painter in consequence was to secure, at all costs, clarity of presentation. There was to be no room for doubt in the mind of the uneducated spectator as to the meaning of the picture; the things, people, and actions depicted were to be definite and unmistakable.

Then, if the painting was to produce its full effect, it would have to be in harmony with its architectural setting, whatever that might be, so that it should combine with the building containing it to impress the spectator. This harmony could only be attained by

endowing the main lines and masses of the painting with an architectural quality, in keeping with the structural lines of the stone or other materials which served as its frame. When these two primary conditions had been fulfilled, the time would have come for settling those questions of rhythm and contrast which, as we have seen, are essential elements in all Decorative art (III, 16, 19, 20).

8. The Oriental Tradition

Observance of these conditions has taken two reparate forms, which for our purpose may be described as the Oriental and the Classical. Of the two, the Oriental tradition is the more ancient. We find it first on the tombs and monuments of Egypt as a lively form of picture-writing in outline. Solids and flat colour become illionettes; clarity of presentation could hardly be carried further. There is no attempt at perspective. The backgrounds are plain, and the figures, so that they may tell strongly upon the eye, are presented in their broadest dimensions, the head and legs shown in profile while the body is a front view. The relics of Cretan frescoes and of the earliest Greek work show a similar preserence for the silhouetted profile, but the frontal position of the body is no longer insisted upon to the same degree. In the next manifestation of Oriental art, which we call Byzantine, the figures are generally seen full face, the medium employed is commonly mosaic, the forms and backgrounds are kept simple and distinct, and the colour is enriched to an

uncommon degree by the interplay of the glittering cubes of coloured or gilded glass of which the work is composed.

Meanwhile in the far East the Chinese were developing a hieratic style of painting on somewhat similar lines. In the finest examples we see the same use of large simple forms and figures, enriched with vivid colour, but conceived always as flat silhouettes. The chief difference from Byzantine art is in the use of rhythm. The Buddhist artists of China worked either in fresco or in what may be regarded as a form of tempera. Their instrument was the brush, and with it they were able to draw contours of a rhythmical suppleness and complexity which the mosaic worker could not hope to attain. In periods of stagnation or decline, this mastery of the brush betrayed the artists of China and Japan into crowding their work with an exuberance of calligraphic ornament, and details which confuse the general effect. But the great artistic epochs, in each country, are characterized by a sobriety and largeness of style which are curiously impressive; it is unfortunate that they are not represented in our National Gallery. The few surviving relics of Indian fresco painting, if they have less screnity, show a more lively interest in everyday affairs. On a small scale we find similar qualities, and a jewelled intensity of colour, in the Persian and Indian miniatures which attained such perfection during the sixteenth century.

The effects of the Byzantine tradition persisted in Europe for nine hundred years. Mediaeval metalwork,

enamelling, and glass painting were all strongly influenced by Byzantine craftsmen, as were Duceio and the painters of the Sienese school. In these we often note a fluency of linear rhythms, and a decorative use of rich colour, which suggest a renewed contact with the East, probably through the importation of Oriental fabrics. Line, colour, and flat modelling are characteristics of our early English tradition. On the Continent they survive in the portraits of Holbein and other Germans, and play a part in the landscapes of Pieter Brueghel. Then in the seventeenth century, when the potters of Delft were turning to Oriental models for inspiration, we find that for a few years the painters of Delft, including Vermeer, developed a sense of pattern which is not found either before or afterwards in Holland. The Chinoiseries of Watteau and Tiepolo in the eighteenth century were mere costume pieces, not based upon any real knowledge of Oriental art, though they did introduce a more lively feeling for colour at a time when liveliness was badly needed. The aquatints of Goya, who perhaps inherited a strain of Moorish blood, are far more genuincly Oriental, in their daring use of line and broad silhouettes of light and darkness. when Japan was opened up to European trade in 1868, Oriental works of art began to pour into Europe, and to attract the attention of artists in Paris and elsewhere. The gay colour harmonies, the pleasant caprices of design and perspective, which painters discovered in Japanese colour prints, had an immediate effect upon the Impressionists, while in Whistler we see a continuous

and consistent effort to acclimatize these Oriental characteristics in London (III. 11, 12).

9. The Classical Tradition

The classical tradition of painting begins in Greece, where painting, for the first time, was intimately connected with figure sculpture. History records a series of famous painters-Polygnotus, Zeuxis, Parrhasius, Apelles, and others; but of their works no trace remains, and it is uncertain how far the degenerate survivals of the art, which we see at Pompeii or in Rome, really reflect the style of composition which the great masters practised. It is clear, however, that the Greek painters had mastered the art of representing the human figure with a weight and a roundness and a convincing substance resembling those of sculpture. They had also followed the convention of fine sculpture, by relieving these figures from a background which was either entirely plain or was at least so simple as to leave the figures in strong relief. Thirdly, though this in some measure must be regarded as accidental, their subject matter was usually the history of gods and heroes as portrayed in Greek legend and poetry. In order to convey the feeling of the superhuman, the painter (like the sculptor) was compelled to search for ideal types of bodily strength, grace, or dignity appropriate to the The Greek great personages he was representing. eculpton attained extraordinary success in the production of such ideal types, differentiated by nicetic of proportion, gesture, and treatment which render this

PAINTING

branch of archaeology a most fascinating and instructive study. The painters followed suit, so that while in the figure of Medea (after Timomachus) we seem earried back to the age of the great tragedians, in the socalled Aldobrandini Nuptials we are transferred to a world peopled with the enchanting terra-cotta figures, from Tanagra and elsewhere, with which Greek sculpture really comes to an end. Lastly, we must note that the colours used are few and simple. There is little attempt at anything which can be called realism. When once he had made his figures solid and convincing, and had set them in positions which explain their significance and their relation to each other, the painter was content. He had no desire to spend his time upon advanced realism of lighting, of local colour, or of landscape background. The effect of a group of simply coloured statues was all that he desired.

We thus have a theory of painting that is essentially different from the Oriental tradition, not only in its preference for convincing substance, and in its intensive study of the human figure, but in its comparative neglect of colour and of rhythmic line. As the Empire of the West declined and the influence of Byzantium increased, this Greco-Roman manner of design had a hard struggle for existence. But it was kept alive by the painters and mosaic workers of Rome, and towards the end of the thirteenth century it entered upon a new and glorious career.

Among the artists who came to work in the churches of S. Francis at Assisi were certain members of this

93

1

Roman school. Their example fired the youthful genius of Giotto, so that in his hands the classical tradition obtained a new lease of life. Once more we find solid sculptural figures, combined in broad and simple designs, and coloured with strong, plain colours, appropriate to their massive dignity. Masaccio followed a century later, with a similar grandeur and a more intimate knowledge of the human form. That knowledge with the next generation became specialized and scientific, but was stimulated and polished by contact with the scholars of the Renaissance—then a most active influence at the chief Italian courts. The gracious paganism of Botticelli, and the marmoreal antiquarianism of Mantegna, are typical products of this wonderful period of transition.

It was in Rome, however, that the classical tradition finally came into its kingdom. In Rome the relics of classical buildings, frescoes, and sculpture were continually being unearthed, in such numbers that any visitor could hardly fail to gather there an impression of what the ancient civilization really had been. So when, at the summons of Pope Julius II., two young men of genius came from Florence to paint in the Vatican, it was inevitable that the environment should affect them. Michelangelo, the elder of the two, having already some knowledge both of Rome and of antique sculpture, had in one or two earlier works foreshadowed the grandeur of the Sistine ceiling. Nothing that we know of Greek painting, or I think of Greek sculpture, shows so gigantic an imaginative and architectural capacity; nothing cer-

PAINTING

tainly seems to have been inspired by such a Promethean spirit. But if, like Prometheus, Michelangelo brought to men a new fire of inspiration, he was like Prometheus also in his tragic solitude. He illustrates all the canons of Greek painting, adding to them a rhythm of design and a magnificence of colour whieli they do not seem to have possessed; but his tremendous imagery is too lofty, too remote from the needs and thoughts of ordinary men, to stir any mood but one of wistful or disquieting speculation, or to correspond with any phase of classical thought outside the world of Aeschylus.

Raphael came to Rome with no such preparation, but by some innate sympathy seized at once upon the classical art which he found there, absorbed its lessons, and proceeded to turn them to practical use. genius was too watchful of itself, and too versatile, to be submerged by his antiquarian predilections. Experiments like the rich and vivid Mass of Bolsena (for so in its original state it must have been), and the realistic Deliverance of S. Peter, show that he was by no means limited to the classical style, when circumstances and his judgment called for a wholly different method of presentation. Yet in the Parnassus, the Galatea, and the Sibyls (Plate II. b), Raphael made the ancient tradition live again, with a fullness of "content" and a rhythmic beauty of design for which there is no extant parallel in Greck painting. Of these frescoes, the Sibyls conforms most nearly to the Hellenic practice in its clarity of presentation-sculpturesque figures set

against a plain background—but the others, and the well-known Cartoons, appeared to provide richer opportunities for the illustration of religious or allegorical themes, so that in after years these came to be regarded as the perfect embodiments of the classical tradition.

That tradition too was quickly modified by other influences. First came the example of Correggio, who, like Raphael, had inherited a double portion of the pagan spirit. His apostles round the dome of S. Giovanni Evangelista at Parma are like giants who have conquered Olympus; his genii in the dome of the Cathedral would have enchanted the Hellenistic world with the rhetoric of their alluring smiles and gestures. Venice complicated the issue still further. Bellini and Giorgione had made elaborate landscape backgrounds an integral part of the Venetian picture. To this Titian added naturalistic colour and substance; Tintoretto followed with three-dimensional rhythm and chiaroscuro. These elements are handled with dignity and restraint in the decorative allegories of Paul Veronese, and in a few later works such as Guido Reni's Aurora, but the days of the true classical tradition were numbered. Poussin made a valiant attempt to restore its grand and simple character, but he was left behind by the stream of Baroque elaboration which now was running without a check.

Men had long been a little weary of the dignified movement and ordered perfection which the classical tradition involved. The stimulus of a livelier motion, the surprise of a calculated imperfection, in the end

became irresistible. The desire for the former produced the Baroque; the latter introduced the picturcsque. The picturesque was attained more or less easily by taking hints from the broken rhythms, the rugged accidents of form and lighting which nature provided. The search for lively movement was a far more complex undertaking. For example, lively movement could not be confined to one plane or section of a picture without an immediate and evident loss of harmony. Movement had therefore to be carried from the foreground to the background, as well as from side to side; it had to pass round a form instead of merely crossing it. So composition in depth became more and more intricate. It could not confine itself merely to the rhythmic adjustment of advancing or receding forms, or the fluttering draperies which suggested the velocity and direction of the movement in space. Light also had to play a part, and that no small onc. Of this new venture Correggio was the pioneer, Tintoretto the generous capitalist, Greco the fanatic high-priest, and Rembrandt in the next century the solitary monarch, by whose strong hands the Baroque and the picturesque were ruthlessly constrained to do his will. Elsewhere, however, they were the masters.

In that age of princely display the fluent, florid profusion of Rubens held the field: the leaders of the Catholic revival had found in Baroccio a model whereby they could attract new converts: the whole of Europe emulated the ostentatious pomps and pageantries of Louis XIV. Then, in the prodigious rhetoric and

courtly elegance of Tiepolo, the genius of Italy flamed out for the last time. But excavation at Pompeii and Herculaneum were renewing interest in Hellenism. The feeling found champions in David and Ingres at the opening of the nineteenth century; at the close of it, Puvis de Chavannes recaptured much of the classical spirit and turned it to modern uses. In England, somewhat earlier, Alfred Stevens had done notable work on Renaissance lines, but, as in the seventeenth century, such experiments were too austere to find favour with a public which accepted the classical spirit only when it had been well diluted and sugared.

The painter's task during all this period was further complicated by the popular faith in 'Truth to Nature'. This led to reactions in France and in fresh efforts towards simplification. Some of the most vigorous can be studied at the Imperial War Museum; excellent work is also being done by the British school in Rome. At a time when the art of painting, like that of social and economic administration, tends to be overwhelmed by the diversity of the calls made upon it, we have good reason to remember the solution of our troubles which the classical tradition can provide, even if we find it hard to confine within its rigorous limits, a sculpturesque treatment and a simple background, all the natural phenomena and imaginative conceptions with which we may be tempted to experiment.

10. The Cabinet Picture in the Netherlands

In the case of the pictures painted for private houses we can trace no such recognized tradition. Each epoch had its own methods and its own ideals, and these are not connected by any common bond of theory or practice, such as we can discern when we study the development of Painting upon the larger scale. Scale, indeed, is the most convenient standard for dividing the one class from the other, and we may conveniently limit the term 'cabinet picture' to such paintings as are not more than five feet, nor less than nine inches, in either height or width. If they exceed that measure they must be classed as hybrids or decorative works; if they fall short of it they should be classed with miniatures.

Works on this scale, portraits, subject-pieces, land-scapes, and 'still-life' paintings were produced in Hellenistic times. The portraits are particularly well known, both as examples of the forgotten craft of wax or encaustic painting, and as illustrations of the character and vitality which a direct and forcible summary of the main features of the human face can impart to a likeness. During the early Renaissance, small devotional paintings for private oratories, and small portraits of rich or famous persons, came to be commissioned. In the Netherlands, these were executed in the minute and jewel-like oil technique which the brothers Van Eyck had perfected. Italy employed the more luminous tones of tempera, enriched as the fifteenth century progressed with glazes of oil. Germany used generally

the Netherlandish method, with that mediaeval linear emphasis of which Dürer is the acknowledged master. France borrowed, often with charming results, both from the Netherlands and from Italy.

When we consider the places for which a cabinet picture is destined, we must recognize at once that two qualities are desirable. The relative darkness of domestic interiors, compared with the brighter illumination of a well-constructed palace or gallery or open cloister, makes it highly desirable that cabinet pictures, if they are to remain clearly visible and to be pleasant decorative units, should be comparatively light in tone. They will also have to stand the test of close inspection, when very uneven surfaces and coarse handling show to disadvantage. Italian tempera painting satisfied these two conditions. The Netherlandish method gave a delightful surface quality, but, like all work in oil, was liable to be rather too dark in tone. Now it was in Netherlandish painting that the Dutch school of the seventeenth century had its origin—a school devoted almost entirely to the painting of cabinet pictures. So from the first this disadvantage attended Dutch painting, aggravated at the outset by influences from the grim 'Naturalist' school of Caravaggio in Italy. But towards the middle of the century the defect was recognized, and for one or two decades a new ideal, the ideal of the open window, was conceived and put into triumphant practice by De Hooch and Vermeer.

The ideal was no novelty. Something of the sort was a popular motive in Hellenistic mural decoration,

PAINTING

where painters, to extend the apparent dimensions of a room, would paint areades upon the wall, through which glimpses of trees and skies were visible. Occasional experiments of the kind had also been made in Italy. But the Dutch were the first to conceive the idea of painting pictures which seemed actually to transport the spectator into a new place and a new society, or at least to give him a glimpse of such things like that which we obtain from Hoogstraten's elever Peepshow in the National Gallery. The power of conveying such an impression was not discovered all at once. An intermediate stage of experimenting with brown half tones had to be passed before the art of rendering light and colour, and of combining them with lively design, was perfected. In the hands of De Hooch and Vermeer, this blend of vivacious pattern with magical illumination conveys exactly the same sort of thrill that Nature herself occasionally gives us, when transfigured by some sudden surprising burst of sunshine. Such natural effects are short-lived, and so was the exquisite science of the Delft masters who learned the secret of rendering them. With the death of Vermeer and the degeneration of De Hooch their secret was lost, and has not been recaptured. 'Iany artists since then have tried to discover that window opening upon Wonderland, but not one has had more than occasional success in getting a glimpse of the momentary and unexpected splendour which makes such visions hold their own with the best that other traditions can produce (II. 9).

11 Poussin

Poussin set himself to adapt the classical tradition to the scale of the cabinet picture, and did so with such judgment that his influence on painting has been almost wholly salutary. Blending a sculpturesque feeling for the figure with a broad and simple handling of forms and planes, he sought for a like breadth and simplicity in his backgrounds. He studied most carefully the proportion which the figures should bear to each other and to the whole picture space, so that his compositions should be neither too crowded nor too empty. The results of so much deliberate planning might in ordinary hands have become frigid and academic; but Poussin was not a mere intellectual. He was enthralled by the fervour and passion of Titian's Bacchanals, and from them there passed into his painting a richness of colour and a flow of rhythmic movement which endow it with vigorous life. Chardin, a century later, applied a similar balance of design, a similar breadth, and a similar mastery of solid form to the painting of 'still life' and interiors. In England, Turner and Cotman at certain moments produced noble landscapes in the Poussin spirit, but these experiments were not encouraged by an age that was bent on naturalism, and have not been repeated.

12. Pertraiture

The Greco-Roman school of portrainire was summary, but eventially sincere, aiming at exact resenblance without any thought of flattery. Sincerity, too, was characteristic of portraiture, both in Northern and Southern Europe, during the fifteenth century.

The treatment of portraits was generally sculpturesque, and they were frequently set against a landscape background. Holbein was a notable exception, employing a very low scale of relief, firm, rhythmic contours and patterned dress, in a way which, as we have seen, is almost identical with the established Chinese tradition. He stood almost alone in Europe, and long before his death another tendency had become evident. Certain painters, Giorgione in particular, set a fashion for making their sitters look romantic; others, like Titian, invested them with an air of senatorial dignity. Then Van Dyck, in the seventeenth century, gained fame and fortune by painting life-size full-lengths and vast equestrian portraits, often magnificent, but usually lacking in the intimacy which earlier likenesses posscssed. Every sitter was transformed into a great gentleman or a great lady, so that sincerity gave place to ostentation. In Spain, Velazquez set a more honest example. But Velazquez was little known outside his native country; Van Dyck was courted by all Europe. The Dutch, meanwhile, had developed a more generally serviceable form of portraiture on the scale of the cabinet picture, which, though inclining to the prosaic and the monochromatic, had the great virtue of sincerity. Two men of genius stand apart-Rembrandt, the master psychologist, and Hals, most vivacious of painters in oil.

Eighteenth-century portraiture was in general a compound of these two elements; France inclining to flattery and ostentation, England to sincerity, enriched by the wide scholarship of Reynolds and the fine taste of Gainsborough. The French Revolution brought a return to classical severity of treatment in the portraits by David and Ingres: but the brilliant, superficial Lawrence had a more lasting vogue, and it was not before the time of Manet that Europe again began to turn to sincerity. Sincerity, indeed, coupled with sound modelling, are the permanent elements of portraiture; the outward form which it takes, so long as it does not involve positively bad colour, confused design, or lack of vitality, scems to be of less consequence than in other forms of painting. Where the plain primary purpose is to record character and personality, purely aesthetic considerations, for once, may take second place. That, however, does not imply their total neglect, for they will still have everything to do with determining the painter's rank as an artist.

13. Landscape

The painter of interiors can arrange his subjectmatter much as he pleases, to compose an effective pattern; his figures are substantial objects, on which the disposition of light and shadow can be observed at leisure. But the landscape painter has constantly to face themes erowded with detail, to which they may owe the best part of their character, and subject to swiftly changing conditions of light, colour, and movement without which they would be devoid of life. Can we wonder that this fascinating branch of art has so frequently led to failure? Let us try to distinguish the factors which at various periods have made for success.

Space, infinity of space and air, was the quality for which the painters of the Renaissance generally sought when they set landscape backgrounds behind their figures. Perugino, for example, retains a hold on our affections almost wholly in virtue of this single quality. With the rendering of Space, certain sensitive spirits, like Hubert Van Eyck and Giovanni Bellini, blended what we may term Mood, the spirit of exhibitantion, pensiveness, or melancholy which the sky so readily evokes, and which makes so apt an echo to human sceling. Claude added a new and stimulating factor— Light-which no painter previously had studied with the same concentration, though Rubens in Flanders had pointed the way just before with a few luminous and breezy landscapes. These, however, were but the easual products of a genius busied about other things, and so had little effect in directing thought either to Light or to Movement in landscape, another quality which Rubens was the first to interpret in oil paint. Claude, in his drawings, rendered Movement with all the dash and freedom of a modern, but entirely failed to earry

So the Dutch landscape painters had only examples that freedom into his paintings. of Space, Mood, and Light to inspire their maiden efforts. Local Colour and Detail, their contributions to the common stock, were rarely favourable either to

had been generally subordinated to naturalistic ideals. Only in the fanciful panels of the Greco-Roman housc-painters, and in a few works by Pieter Brueghel, do we get a hint of alternatives to the somewhat static patterns established by Claude. The development of photography, and the scientific study of light by the Impressionists, were directing thought still further in the direction of realism, when Japanese colour-prints were brought to Paris and London. Their vivacious rhythms of line and colour, and their bold decorative stylization, at once compelled attention to design, and the effects still remain with us, although they are obscured at the moment by the reputation of Cézanne, the Post-Impressionist heir of Claude and Poussin, and by the crowd of more recent claims to final authority.

We may conclude our survey by asking how far Space and Light, and Mood and Movement, Local Colour and intimate Detail, the chief motives, it would seem, of man's pleasure in landscape, are compatible with the structural design and decorative effect which any good picture should exhibit. When doubt arises, which quality or qualities should we sacrifice first? Each man, of course, must be true to his own preferences or his work will be insincere. The greatest landscapes appear to agree in sacrificing some measure of Detail or Local Colour, or both, in order to secure the larger harmonies of design. In quite small studies and sketches, a formal structure ceases to be essential; in such cases, something may be risked in the cause of intimacy. Unsuccessful landscapes indicate that, of

the remaining qualities, Light is essential, and Space hardly less important. Space involves some three-dimensional element in the design, and that will include for Europeans a more convincing suggestion of bulk and substance than the Oriental eye demands. Mood is precious, but calls for tender handling to avoid the extremes of romantic sentimentalism and harsh melodrama. Movement of some sort is generally refreshing: hostile to Detail, it may be a valuable aid to Rhythm.

14. Principles Governing the Cabinet Picture

We may now inquire whether any general principles emerge from this survey of the cabinet picture, similar to those which govern the painting of pictures on a large scale. It is evident that in some respects the two are nearly identical. Both are forms of Decorative art, and are therefore subject to its conditions of architectural planning, rhythmical motive, and stimulus by contrast. But the frame of a cabinet picture tells more uniformly and directly upon the eye than that of a mural painting. Being usually rectilinear, it contributes an additional element of stability to the design, which permits the design itself to indulge in a more capricious disposition of lines and motives than would be acceptable on a large scale. So the contrasted diagonals of Chinese and Japanese art are used by masters like Degas without arousing disquiet. In the same way, a freely handled sketch may become a vivacious design if it he not more than two or three feet square: if expanded further it would certainly be

PAINTING

found flimsy or incoherent. As to rhythm-when we see a small reproduction of a large picture we are often conscious of a sense of crowding; the rhythmic motives look too numerous for the space which they occupy. This experience would suggest that in cabinet pictures the rhythms should in general be few and simple. On the other hand, these rhythms may safely embrace effects of strong projection and three-dimensional presentation, which, on a large scale, are apt to become oppressive. When reduced in size they cease to be disconcerting, though they are always a danger to breadth of design. In the matter of stimulus by contrast we may indulge ourselves rather more freely. A contrast of colour which would be overwhelming on a large scale may prove to be delightful and vivacious on a small one. The same principle applies to contrasts of tone. The slashes of velvety dry-point with which Rembrandt enlivens a delicate etching, would tell as monstrous blots if the design were magnified to the size of a mural painting.

Here, perhaps, we may find one of the reasons why ordinary transcripts from nature make rather dull cabinet pictures, just as ordinary photographs are apt to be dull. Natural landscapes present themselves to us on an immense scale. If we are to interpret them effectively on one or two square feet of canvas, they must either possess in themselves a super-abundance of stimulating matter which will survive the process of reduction, or we must augment the stimulus by some artifice. Turner did this by intensifying light and

109

colour; Rembrandt by intensifying shadow, a more dangerous method, from its tendency to make pictures heavy company. Indeed, to be serious without being heavy is perhaps the most troublesome problem which the oil painter has to confront. In water-colour and (less rapidly) in tempera the difficulty can be evaded. The question of scale may be decisive. When our scale becomes less than that of the smallest open window, i.e. less than some fourteen or fifteen inches square, it is doubtful whether oil is the suitable medium. We are approaching the dimensions proper to the water-colour and the miniature, and the oil painters who have trespassed on that debatable land have seldom or never done so with profit.

15. Tradition and the Individual

The general principles and methods of painting which we have been discussing are but the bare bones of art, or rather its central core or nucleus, upon which every painter now must build his own style, in accordance with his convictions, his personal temper, and the needs of the occasion. This individuality gives a particular character to each man's work by which, in some degree, it will attain or lose repute; but that repute will also be determined by the soundness of the tradition on which the artist has based his personal style. A secondary talent, working in a fine tradition, may thus make a more lasting name than a much abler man working upon a theory that is unsound. In these days, when books about art and reproductions

PAINTING

of the best pictures are available everywhere, the young artist of intelligence ought to be in no doubt as to the general principles of his craft—though he may well be puzzled by the diversity of the theories and the examples which are pressed upon his notice. These theories are based upon inborn human preferences, and the types of mind which give rise to them may, for practical purposes, be classified as the Historic, the Scientific, the Realistic, and the Romantic.

16. The Historic Temper

The historic type of mind naturally turns to the past, both for its subject matter and for its methods of work. Its general tendency is to illustrate some incident in history, legend, or fiction, and its possession is thus particularly valuable to makers of popular and didactic art. Since it approaches painting from the standpoint of history, rather than from the aesthetic side, its products are apt to be uninventive technically, and to be concerned less with form, design, and colour than with If controlled. pedantic minutiae of dress and detail. however, by great artistic genius, it may produce remarkable results, as with Mantegna and Raphael. Both were enthusiastic students of antiquity, but both had the genius to transmute their learning into novel and majestic design. With commoner talents the historic temper leads to the painting of mere costumepieces, unless it is fortunate enough to find an outlet in some more appropriate channel, such as bookillustration.

17. The Scientific Temper: its Three Forms

This temper is so common in these days of education, and so apt to colour all men's mentality, that its influence upon the arts demands the most careful study. The scientific influence takes three forms—the first, philosophic and theoretic; the second, mathematical; the third, eclectic.

18. The-Philosophic Theorist

The philosophic theorist approaches the arts, as he would approach any other activity of the human mind, with much less regard for what humanity has actually and successfully achieved, than for the abstract principles which ought to govern the employment of some particular means of expression. If those principles conflict with what has hitherto been regarded as great art, so much the worse for the art. Now, since painting appeals primarily to the visual sense, it is perhaps theoretically true that in its purest form it should be entirely devoid of any further source of attraction such as literary, descriptive, or psychological associations provide. have already seen that this condition is fulfilled by certain kinds of Decorative art (III. 3). But are we really restricted to this single mode of recording our visual conceptions? Must everything be reduced to an abstract symbol before it can be an acceptable offering in the temple of Aesthetic Righteousness? We may well consent to accept an ideal of aesthetic perfection, as we (presumably) accept an ideal of upright and decent living. But this latter ideal does not compel us to re-

PAINTING

nounce all human feeling, in the attempt to become immaculate paragons, any more than a theory as to the best way of quenching thirst need restrict us to drinking only such liquids as are scientifically pure-distilled water, for example. Are we to deny ourselves the pleasures of the concert room and the opera house because the music there is contaminated by psychological and spectacular 'impurities'? Clearly these theories cannot be interpreted so rigidly. As Reynolds noted long ago, "Variety . . . is not to be slightly given up upon a punctilio of reason, when that reason deprives the art in a manner of its very existence. blways be remembered that the business of a great painter is to produce a great picture; he must, therefore, take special care not to be cajoled by specious arguments out of his materials."

19. The Right Use of Theory

How then are we to strike the happy mean between rigour and laxity? We may, I think, learn a lesson from a similar and much older discussion which agitated artistic circles: the search for a perfect canon of the human figure. That search for a central, impeccable type of the human body led time after time to insipidity, until at last it was realized that the forms of beauty were not one but many, and that each of them involved some departure from the central ideal, some emphasis of the particular character which the artist wished to express. The ideal, in fact, could only be used as a sort of nucleus existing in the artist's mind, to which he could add, or

from which he could subtract, as the purpose in hand required.

The theory of 'pure' aesthetic is in exactly the same position. It is not an immutable law, but a most valuable working principle. As I have said elsewhere, "we may think of it as the plastic foundation (the sculptor's core or armature) with which all artistic expression must begin, and upon which it must build it appropriate monument. The fallacy of the moderns has been to mistake the core for the finished statue." What does that imply in practice? It means that we must still think of painting, primarily, as an arrangement

PAINTING

did so in an atmosphere of scientific research. Anatomy formed a part of this research, and by the labours of Pollaiuolo, Leonardo, and Michelangelo was brought into the service of the whole artistic body. Mathematics had a strong influence, not only in matters of plan and proportion, but also through perspective, by giving optical correctness to effects of projection and recession. Piero della Francesca, for instance, was the great mathematician of his age. Paolo Uccello went still further, aspiring, by study of the geometry of solid bodies, to reconstruct the visible world on canvas, or at least to provide a pictorial substitute for it. Nearly five centuries passed before a similar theory found favour again, with the group of painters who are commonly known as the Cubists, although we may perhaps discern a similar tendency in some of the latest works of Beethoven. . It is easy to understand how a creative artist of such immense genius should feel at the end of his life that he had, for the time being, exhausted the capacities of fluent melody, and amuse himself by constructing a new musical edifice out of themes which to others appeared angular and intractable, finding a fresh stimulus in the difficulty which the experiment involved.

Uccello, too, could survive such a handicap in virtue of his natural gifts as a colourist and designer. For ordinary talents the theory comes to little more than a juggling with rectangles, often effective enough in advertisement posters, but having a very limited range of expression in other ways. Geometry, indeed, is appropriate chiefly to the architecture of the arts. to

the general planning of a design. There it is almost indispensable. But when applied to details it quickly develops the chilling aspect of a sarcophagus, wherein Life and Grace and Movement are ruthlessly entombed (III. 18).

21. The Eclectic

The painter of scientific tendencies may be influenced by a third form of argument. Different schools, different countries, and different periods have perfected various forms of art. Is it not possible to arrive at a more universal perfection by blending the merits of them all? The historic effort to attain this perfection was made by the Carracci, in the Eclectic School of Bologna, with results that were soon recognized to be insipid. But that recognition has not prevented painters from falling again and again into the same error. We see it even to-day in those who counsel our artists to adopt a 'cosmopolitan' style. The fact is that painters who, like the Carracci, attempt to combine the beauties and excellences of many styles of painting, do not see that these various and perhaps contrary forces tend to cancel each other, so that, in spite of all the energy that may have been expended, the resultant is utterly feeble, unless there is a strong bias in some given direction. Poussin, for example, was an Eclectic, who was saved from coldness by his passion for Titian. Reynolds was an Eclectic, who was saved from insipidity by his eye for character in men. for graciousness in women, and for the charms of child-

PAINTING

hood, even more than by the variety of his borrowings. So fatal in general is the Eelectic habit, and so persistent in its menace in these days of universal culture, that conscious devotion to one recognized school or manner of painting appears a less perilous method of founding a personal style.

22. The Realistic Temper

This we have already discussed (III. 7, 8, 9, 13), but "Truth to Nature" is so plausible a catchword, from its seemingly scientific principle, that it is well to be sure of the reason why it cannot be accepted as a guide without very considerable reservations. The appearances of nature are so various, and so full of detail, that we rarely or never see any combination of them which can be rendered, as a coherent design, without some simplification, selection, and re-arrangement. When these processes are undertaken by a consummate master of structural design, like Vermeer, the result may be something that resembles life itself, and so vividly, perhaps, that we overlook the science which has weighed and blended the various elements with such impeccable skill. But the majority of natural phenomena do not lend themselves readily to such adjustments. Their forms and colours have no close relation to each other, and if we render them as they are the result will be incoherent. To compose and weld such details into rhythmical unity, most of them, if not all, will have to be rendered by symbols having some sort of mutual relation to each other.

The born realist may continue to struggle against any such synthetic reconstruction, but the camera has made his position very difficult, if not quite untenable. The photographer has already catered so universally for our realistic instincts by making all the common aspects of nature familiar to us, that neither the artist nor his audience can get a thrill of surprise or delight from ordinary transcripts of them. Realism was once a novelty: now it is become a commonplace. The exquisite designs of a Vermeer, or some other unexpected blend of naturalistic light and colour and pattern, as with Degas, may reconcile us to individual pictures, but the power of so combining nature with pictorial structure is exceedingly rare. We may still remember, however, that Light, if adequately suggested, has a most stimulating and convincing quality, so that this part of realism at least may continue to be a most valuable reinforcement to forms of creative art which are not otherwise realistic.

23. The Romantic Temper

Under this heading we may sum up all those moods in which man attempts to penetrate beyond the external and literal significance of things, to the associations which memory may evoke or speculation may excite, to the intangible and mysterious element in spiritual experience or natural phenomena. Such elements are the soul of poetry and music. How far are they admissible in painting? The intrusion of 'literary' elements into the arts has long been suspect, but it is

only of quite recent years that aesthetic theory has banned them altogether. Is that ban a fashion of the moment? Or must it become an integral part of the painter's creed for all future time?

At the outset, we are confronted with the fact that a very large and delightful part of the painting which we are accustomed to admire is infected with the alleged poison. If the nineteenth century was the period in which Romanticism ran riot, its origins are much more ancient. We find it in classical painting, as in the Medea fresco. The close connexion of painting with poetry is part of the established Chinese tradition. With the coming of the Renaissance we see it almost everywhere. The austere Mantegna has his mystic mood. The tenderness and pathos of Giovanni Bellini, the psychological musings of Leonardo and Rembrandt, are no less typical of its presence than the wistful poetry of Giorgione or Watteau. If all such manifestations of human feeling had been denied to us, if painting had never been anything but a frigid, intellectual exercise in the choice and synthesis of forms and colours, would not our artistic experiences be infinitely less rich and varied than they actually are?

It is equally clear, however, that in many cases these romantic elements have obscured or perverted artistic talent. The example of Rembrandt will be sufficient for our present purpose. Rembrandt was an artist of slow growth who, through intense study and self criticism, became in middle life a very great master of design. But he was fascinated still more by the mysteries

of spiritual life, by the deep wells of feeling and memory and aspiration which underlie surface appearances, and are the springs of conduct. He found a means of isolating and emphasizing these mysteries in a scheme of deep, glimmering shadow, aided in his paintings by broken, crumbling touches of the brush and smouldering fires of colour. He gained the intense expressiveness for which he sought; but he gained it at the cost of making his pictures so dark that their structural merits were obscured, their decorative quality diminished. What those structural and decorative qualities might have been we can judge from some of his etched compositions. In the Extembment of 1654 (H. 281), for example, we can actually compare a first state done in luminous, open line work with a later state in full tone. In the former the structure shows clear, and a magnificent structure it is. In the later state the structure is buried in gloom, and we are conscious only of a few points of light emerging, effectively enough, from an expanse of velvety darkness, but lacking that definite and continuous relation to each other and to the whole surface which pictorial design implies. We are no longer dealing with an organic structure, but with more or less isolated fragments (Plates IV, and V.).

The consequences of such indulgence in the romantic temper are naturally much more serious with weaker talents. In the search for 'feeling' and atmosphere, their design is softened into flaccidity or lost altogether; their colour and handling suffer a similar deliquescence, and in the end they rarely escape from becoming pretty,



REMBRANDT: THE ENTOMBMENT. (SECOND STATE)

picturesque, or sentimental. Even the great gifts of G. F. Watts were not always strong enough to resist this temptation. Yet where an artist is secure of his main structure, and does not permit his feelings to betray him into tampering with its walls and pillars, there is no reason why he should deny himself those aids to personal expression which correspond with the deeper instincts of humanity, just because they are condemned at the moment as Romanticism. The tenderness of Bellini, the mysticism of Mantegna, the fierce, passionate sorrow of Titian's great final Pietá, do not sensibly impair the pictorial quality of the works which exhibit them, while they undoubtedly prolong and intensify the thrill of pleasure with which we regard them. When once we have grafted our romantic inclinations upon the stem of firm design, we can therefore safely let them blossom, so long as we remember to keep the shoots strictly pruned, lest they degenerate into the lush growths of sentiment and cheap pathos, which have driven our juniors in disgust to abjure Romanticism altogether.

24. Conclusion

We live in a mechanical age, which seeks to reduce all the arts to their scientific and theoretic foundations, and in its fervour would narrow down the strait canons of the Classical and Oriental traditions to a base that is little more than bare geometry. But since men are always prone to accept the fashion of their age, whether it comes from the East or from Rome, from Paris

Provence, for the final word in art, we need not be too deeply concerned. This fashion will pass, as other narrow creeds have passed. We may admit its partial truth; and then remember the example of all great artists. They may have painted to order, they have always learned from the example of others, but the message they have delivered has been essentially their own-the enriching of a sound tradition by the resources of a fresh personal vision and enthusiasm. Tradition, whether of the Classical or Oriental type, has provided the foundation, the buttresses, the columns and the girders which give stability to the new structure. Personality has endowed it with the style and character whereby it survives in the memory as the creation of a great man. Let us admit that the expression of profound feeling may sometimes be difficult to reconcile with structural conditions. Well! All great artists have had to face that risk, and art, after all, would be a dull business if it were not something of an adventure, like life itself.

CHAPTER VIII

SCULPTURE

1. The Various Forms of Sculpture

Sculpture, the art of making graven images, is perhaps older than painting. It is certainly less complex. For practical purposes it may be classified under two headings: sculpture in the round, when the figures or objects carved can be viewed from all sides, and sculpture in relief, where the work has a fixed background, as with a medal or a wall-panel. These two branches may be further subdivided according to the materials employed. Wood, stone, metal, ivory, and clay have each their own virtues and limitations, which the sculptor has to respect. Finally, there is the vexed question of Colour, and its appropriateness to an art which primarily would seem to be concerned with Form alone. It may be well to clear the field by dealing with this question first.

2. The Application of Colour to Sculpture

As we have mentioned (II. 8), there is good authority for the use of colour in connexion with portrait sculpture. The Greeks, indeed, coloured their sculpture far more

generally than the extant remains of it would suggest at first sight. Sculpture with them was but one of many forms of elaborate craftsmanship, and it could never have held its own, and maintained its liveliness in its cunningly wrought and decorated surroundings, had it not been brought into some harmony with them by the usc of colour. That colour has now perished almost everywhere, and it is only by relics like the Sarcophagi of Sidon, and by occasional fragments of colour surviving clscwhere, that we can reconstruct an effect which was wholly unlike the chilly contents of the sculpture galleries in any ordinary museum. While we must all recognize that there is a certain monumental dignity about sculpture in plain stone, especially when allied with architecture, as in a cathedral porch, this dignity should not be formulated as a strict canon for sculpture as a whole. For many interiors the employment of colour is a distinct advantage, whether on the cool and simple scale seen in Della Robbia ware, or in the more elaborate effects which the Chinese attain in porcelain, and often combine with no little majesty of presence. Where a material possesses some singular beauty of its own, like bronze or ivory or crystal or the hard stones used by the Egyptians, it is clear that colour, beyond perhaps some simple enrichments by gilding, cannot safely be added. Even the elaborate patination of bronze sculpture, which some modern artists affect, may look sophisticated if it be carried too far. Less rich materials, such as terra-cotta, will take to colour more kindly, and most kindly when the scale is modest.

Tanagra statuettes, and the similar works of the Tang and Sung periods in China, owe much of their charm to the traces of colour which they bear. Some painted terra-cotta groups on a larger scale, and the sculpture in Spain attributed to Greco, Alonzo Cano, and others, are further proof of the power of colour in adding to sculpture a dramatic force similar to that of vivid realism in a picture. The gravest and greatest forms of Renaissance seulpture, however, undoubtedly use colour with extreme moderation, or disdain it altogether, so that its employment or rejection seems to depend on whether the sculptor wishes to charm or to impress. One other point we may notice. If a sculpture has attained extreme realism of form a similar realism in colour may not be inappropriate. Where the form is more abstract and idealized, such realism of colour will conflict with the character of the piece, and, as in painting, the colour must be simplified or suppressed (II. 8; III. 10; III. 12).

3. Sculpture in the Round

Man's first essays in sculpture, as we have seen, were apparently prompted by seeing some oddly shaped root, or stone, or bone. Later, when he wished to set up some image or monument, a rock or tree-trunk might be inscribed with some symbol to explain its purpose, or roughly shaped in human or other likeness. Where trees had been used, subsequent images in other materials would still approximate for a while to the cylindrical form, as we see in some early Greek figures.

Sculpture in ivory was still more strictly limited by the curvature of teeth and tusks, and we often see this curvature retained by sculptors in other materials. When the quarrying of stone became a regular industry its natural cleavage produced rectangular masses, and these often contributed their squareness to the statues made out of them, as we see in Egypt and Greece. The casting of statues in bronze gave the sculptor opportunities for a much greater freedom in poise and treatment, while clay lends itself naturally to more intimate and casual products, from its cheapness, and the ease with which it can be modelled, moulded, and adorned with colour (II. 3).

4. Sculpture in Stone-Egypt

The most ancient of the great schools of sculpture, that of Egypt, was inspired by two motives. One was to record the greatness of living rulers, the other to provide for them a continuance of stately living in the underworld. The former motive led to the making of colossal statues in granite and other enduring stone—figures standing or seated, stiff and four-square, but suggesting by their vastness and immobility an eternal and superhuman power. The latter called for images of wives and servants to be placed in the dead ruler's tomb, a merciful substitute for that wholesale human sacrifice of which the excavations at Ur have revealed such convincing relics. Surrounded by these attendants, the spiritual body of the great man might hope to continue the life he had enjoyed upon earth. At first this

SCULPTURE

renewal of existence appeared to be closely connected with the likeness of the buried images to their living prototypes, so that for some centuries a wonderful series of portrait statues resulted, of which the Seated Scribe in the Louvre is a famous example. Then the spirit of power conquered the spirit of life, and for nearly three thousand years Egyptian sculpture went on its austere unchanging course, with one or two intervals, like that which, in the fourteenth century B.C., produced the vivid Tell-el-Amarna portraits at Berlin (II. 8).

5. Greece

The Greeks began with a similar rectangular stiffness, but they slowly developed the working of marble and bronze, more tractable materials than granite, until they had completely mastered the craft of lively presentation. When they had once outgrown the leadingstrings of Egyptian four-square frontality, they rapidly attained certain qualities in sculpture which have never again been attained to quite the same degree. Familiarized with the nude human figure by their athletic habits, they utilized the strength and activity of the prize-winners in their sports, as models for the superhuman attributes of their gods and heroes, with whose images their temples were decorated. So the power and monumental quality of the older sculpture were reinforced and, to some extent, replaced by scrupulous care for form and movement. The pediment sculptures of the Parthenon, associated with the name of Phidias, represent the moment of equipoise, when knowledge

and movement have come, yet monumental grandeur is still retained. This blend of noble qualities survives in some later works, as in our Demeter of Cnidos, but the Phidian epoch was followed by a long period in which enthusiasm was chilled by academic experiments in anatomical proportion, and grandeur was softened by refinements of expression and texture. Of this refinement the Hermes of Praxiteles is a noble specimen. In Hellenistic art it declines into over-sweetness, but still remains delightful. Certain Greek sculptors in Asia made a notable effort to regain vigour, and, in the huge figures and flamboyant draperies of the Pergamon Altar, the style of Michelangelo and of the later Baroque sculptors is already foreshadowed. Then the creative impulse died, and copyists produced the 'antiques' which fill the older galleries and museums of Europe. Minor sculpture, however, displayed an enchanting skill and suavity, which lived on under the Roman dominion until Rome herself had lost her pre-eminence.

6. The Middle Ages

To this heritage from the Greeks the Romans added little, except in the case of portraiture, a craft which they encouraged and practised with success when all other forms of sculpture had become mechanical. Then the Byzantine craftsmen held the field, for some six hundred years, with elaborate metalwork and coloured decorations. Sculptured figures accordingly did not come into general use until the church builders of the twelfth and thirteenth centuries had need of them. The models of

these heralds of the Renaissance were such easual relics of classical or Byzantine art as had survived the long epoch of wars and invasions. At first these sculptured figures were chiefly used as an actual part of the soaring cathedrals in which that age found an outlet for its spiritual aspirations. From this close alliance with architecture statues came to be clongated, in harmony with the tall pillars and buttresses around them. the mediaeval sculptors were a vigorous race. Their natural passion for life and beauty quickly modified this convention, and though the stone which they'used was not capable of receiving and retaining the high finish of Greek marbles, their statues have nevertheless a charactor, a sweetness, and a dignity not unworthy of their distinguished origin. That finish also was within their power is proved by their exquisite carvings in wood and ivory,

7. Renaissance Italy

Italy had an advantage over Northern Europe in possessing at Carrara an inexhaustible supply of statuary marble. It was there accordingly that Niccolo Pisano made a beginning, by adapting the style of antique sarcophagi to contemporary needs. His son, Giovanni Pisano, breaking with these classical traditions, introduced a monumental Gothic naturalism which was perfected a century later by Donatello. Donatello's immense inventive power was, however, most fully displayed in his reliefs, or in bronze, and the charming Quattrocento sculptors who followed him

produced little work in stone which was not merely a refining of what had been done already.

The change came with Michelangelo. Every year's excavations brought new 'antiques' to light, and, under their influence, Michelangelo revived the ancient idea of a statue as the embodiment of some aesthetic or spiritual conception. His knowledge of anatomy could not be half-instinctive, as it was with the Greeks. It was obtained by exhaustive study, and utilized with an entircly novel freedom. Dominated by two characteristics, a passion for power and beauty held in thrall, and a profound speculative interest in the problems of death and the resurrection from the dead, Michelangelo expressed the former by deliberate changes in the proportion of limbs and extremities to suggest eolossal strength, while, by leaving a portion of his figures unfinished as if they were but half emerged from the earth, he enveloped them in mystery. The Pergamon artists had displayed a not dissimilar power, but never before or after was sculpture allied with a like spiritual intensity. Such high thinking, however, was not in accord with the luxurious mood of the seventeenth century. That century found more congenial expression in the ingenious riot of florid rhythms and nicely calculated interruptions, which we term the Baroque style, and associate with leaders like Rubens and Bernini.

8. France

After Michelangelo no sculptor of comparable genius appeared in Italy. The brilliant, captivating talent

SCULPTURE

of Bernini was of far more flimsy substance, and may be grouped appropriately with the achievement of France under Louis XIV. There Coysevox and others developed a sparkling style of portraiture which, like Bernini's, was supremely skilful, elegant, and observant. But the naturalistic rendering in marble of such things as periwigs and satin scarves reduced the sculptors' art to a sort of fretwork in stone, which, for all its vivacity, was anything but monumental. That monumental character began to return after the middle of the eighteenth century, when excavations at Pompeii and Herculaneum turned men's thoughts once more to antique simplicity. The great Houdon made fine use of this new enthusiasm: with Canova it degenerated into an insipid academic convention, which prevailed all over Europe for some fifty or sixty years.

9. The Nineteenth Century and After

During the nineteenth century France produced a series of able Eclectic sculptors, and Barye, a gifted interpreter of animal life. Towards the end of it came Rodin, a well-trained craftsman, whose excursions along the varied paths of sculptural emphasis were always governed by a workmanlike instinct as to what could be done with any given material, when translating into solid form the latent heroic in human movement. Since then sculpture has been more audaciously experimental. Maillol, by devoting himself exclusively to the rendering of bulk and substance, is generally recognized as the most notable master of form whom

France has produced of recent years. Our one English genius, Alfred Stevens, was born out of due time. Inspired by Renaissance models, he produced in the middle of the nineteenth century the noble decorations for Dorchester House, and the Wellington Monument in St. Paul's. Still more massive, more vehement, are the *Mourning Widows* carved by the Serbian Mestrovic for the Temple at Kossovo, figures which recall Michelangelo in their gravity and grandeur.

10. Oriental Statues

With Oriental sculpture in stone we may deal more briefly. Possibly owing to the dearth of fine statuary marble, it seldom attained a delicacy comparable to that of European sculpture, or of the Oriental bronzes and porcelain. The conquests of Alexander brought India into contact with Greece, and so provided a stylistic nucleus to which each nation added its own contribution. The scated figures of Buddha in India and Ceylon are among the most majestic achievements of the East, having the monumental gravity of Egyptian Colossi, but breathing a spirit of screne and compassionate meditation instead of stolid defiance. Crowding and a luxurious profusion of ornament are the besetting sins of ordinary Indian work, though it is frequently vitalized by a sensuous, sinuous rhythm for which there is no parallel in Europe. The sculpture of China in general has a similar origin and, when it deals with Buddhism, a similar character; but the surviving relics of it on a large scale are usually

SCULPTURE

inferior in spirit to Indian products of the same type. The plastic genius of the people followed other channels, as did that of their neighbours in Japan (Plate II. a).

11. Sculpture in Bronze

Stone, as we have seen, lends itself most naturally to compact and monumental forms. Widely extended limbs, flying draperies and the like, cannot be rendered in it without an undue expenditure of labour and material. Clever sculptors in all ages may have defied this elementary principle, yet it remains a sound principle still. But in bronze all such extensions, protuberances, and projections can be cast quite easily, and incorporated with the main masses by welding. A bronze statue, too, being hollow, is relatively light in weight, so that a figure may be poised upon a slender support without the risk of fracture at the base, to which a similar figure in marble would always be liable unless it were provided with some kind of prop. Bronze is thus the appropriate material for equestrian statues, and for all subjects which include slender, clongated forms. Again, bronze takes kindly to chasing, so that details and ornament can be introduced, where necessary, with a delicacy and elaboration which the stone-cutter could not match.

12. Greek Bronzes

The remarkable statue of a queen of Elam—c. 1500 B.C.—in the Louvre, and a host of smaller Egyptian works, show that the art of casting in bronze was of

very ancient origin. Towards the close of the seventh century B.C. the Greeks, having learned the technique from the Egyptians, took up the craft, and in another two hundred years carried it to an extraordinary perfection. Whether the demand was for imposing statues or for delicate household ornaments, utensils, or furniture, the Greek bronze-worker was equal to it. In casting, welding, chasing, and finishing a statue his skill was impeccable, and, being inspired by the fine sense of style which was then a national inheritance, the relics which have descended to us are no less beautiful than they are scarce. Lysippus, for example, the most famous of sculptors in bronze, is not represented by any authenticated work. A number of fine bronzes, however, owe their preservation to burial in the ruins of Herculaneum. Among them is the head known as Plato, which, in nobility of conception as in refinement of craftsmanship, will serve to illustrate the perfection to which the Greeks attained. The style and design of the more important works was echoed by countless little bronzes, full of spirit and grace, through which we approach much more nearly to the true Greek temper than by seeking for it among the frigid marbles of which ordinary antique collections are chiefly composed.

13. Italian Bronzes

The craft of bronze-working passed to Italy with the Greek colonists and artisans, but the great creative epoch was over. Several bronze relics of this later



still persists to the detriment of crastsmanship. Too many bronze-workers have become content with the picturesque effect of their sketches in clay, and the sort of 'pulled-bread' texture which results; an easy way of avoiding the labour of finish, but one which really does no justice to the nobler possibilities of the material. Considerable attention has been devoted to artificial patination, notably by the Swedish sculptor Milles, and the results attained indicate that the worker in bronze has a much wider range of decorative colours at his command than was formerly the case.

15. Oriental Bronzes

By the sixth century B.C. bronze-working had passed from Mesopotamia to Persia, and was employed there with exquisite skill for making figures of animals. The conquests of Alexander in the fourth century carried Greek bronze-working to India, and Greek bronzes soon reached China as articles of commerce. Buddhist missionaries spread the knowledge of the craft still more widely, so that it has been practised all over Asia for some two thousand years. In India it was employed not only for Buddhist images, but also to represent the personages of Hindu mythology. The material was particularly appropriate to their many-handed figures, which, though they often look grotesque and overloaded with ornament, exemplify that unique sinuous rhythm of movement to which I have referred. The Chinesc used bronze for superb ceremonial vessels rather than for statues, and in range of achievement were surpassed

SCULPTURE

by the Japanese, who used the metal, either for colossal statues or for the most minute objects, with a patient skill which surpasses even Greek accomplishment. Their early work is analogous to that of India, and their seated figures of Buddha, sometimes on a gigantic scale, have a serene majesty like that of the Indian statues, though the forms are more suave and rounded. This tendency towards taking the oval rather than the cube as the unit of form, is a feature which we notice also in Chinese plastic work. But the native talent of Japan preferred to work on a small scale, with subjects that were intimate and playful, and though the skill devoted to such things cannot perhaps rank as genius, we must admit that it argues supreme ingenuity and taste.

16. Sculpture in Wood

Wood provides the sculptor with a material which is easily worked, and admits the utmost crispness of touch with the chisel, yet these facilities for spirited handling must be used with caution. When the chisel is cutting along the grain of the wood it moves readily enough; but when the cutting has to be done across the grain the chisel meets with more resistance, and it is not always easy to secure uniformity of modelling. Owing to the bias which the grain introduces, statues in wood, especially the softer woods, have a tendency to exaggerate the height of figures and to lessen their transverse dimensions. The softer woods, too, are brittle across the grain, so that abrupt projections cannot easily be carved, and when carved remain brittle. Hard woods, like

boxwood, are comparatively free from this defect, and so are commonly preferred for small and elaborate carvings. The grain of many woods is so conspicuous as to interfere with the suggestion of form, but as the surface of wood is sympathetic to paint, wooden statues have frequently been coloured, sometimes with admirable effect.

Ancient statues in wood must have been very numerous, but very few have survived except those which have been preserved by the dry Egyptian climate. These Egyptian works are mostly quite small and, as a class, are more varied in type, but less carefully worked, than their statues in more precious materials. The Greeks began by worshipping rude wood images, which in time they learned to cover with thin plates of gold and to decorate with ivory, but this elaborate chryselc-phantine method yielded in due course to the more natural arts of sculpture in marble, bronze, and terracotta. All relics of it have perished, and we know of it only by description.

So, practically speaking, the story of sculpture in wood begins in the Middle Ages, when the cathedral builders of France, Germany, and the Netherlands used the material freely, with a grace and liveliness similar to that which they displayed in stone-work, and with the added charm of colour. Contemporary with them are certain Chinese statues in painted wood, of the Sung dynasty, like the figures of Kwan-yin at Boston and elsewhere. These exhibit a similar blending of subtle expression with natural dignity, and so deserve to rank with the European masterpieces. Rather later, the

carving of statuettes and ornaments in boxwood became a famous craft among the Germans, a craft more notable, indeed, for character and intricacy than for nobility of style, but yet a real and highly skilful craft. Later still, wood was used in Spain with singular realistic force, for images of the Madonna and the Saints, by a whole series of sculptors, of whom Alonso Cano was perhaps the most famous. Though these coloured images have not the monumental quality of the finest mediaeval work, their intensity of feeling and lively sense of personality exercise no little fascination. We may not like these displays of realism, but we must admit that they show an intense sincerity which, in the late Renaissance, was by no means common.

17. Sculpture in Clay

Clay is a material that is generally accessible, that can be easily modelled or pressed into shape, that can be hardened by firing, and can then either be painted or receive coloured glazes from the potter. So clay statuettes of men, beasts, and divinities are a feature common to all early civilizations. In Egypt they became things of beauty when coated with a turquoise-blue enamel. Remarkable specimens of a much more varied and elaborate glazing are furnished by Minoan Crete. Then Hellenistic Greece produced the long series of votive or decorative statuettes commonly known as 'Tanagra' figures. In them the graces and refinement of later Greek sculpture are delightfully echoed, and enhanced by touches of gilding and colour.

When Greece as a creative centre ceased to be, a new centre of clay-working was starting in China. There, under the Han, Tang, Sung, and Ming Dynastics from A.D. 200 to A.D. 1700, a series of statuettes was produced far longer than that of Greece, with occasional experiments upon a larger scale. The earlier statuettes, including a number of equestrian pieces, are in terracotta or stoneware, and often show remarkable spirit. Gradually, as porcelain took the place of stoneware, the artist's aims became elaborated with his technique. The dazzling white paste and rich enamels of the Ming period too often adorn figures which have become conventionally 'smug' or grotesque in expression, and which seem overwrought and sophisticated by contrast with the vigorous simplicity of the earlier ruder time.

Meanwhile, in Italy, the sculptors of the early Renaissance were developing terra-cotta side by side with bronze and marble. The most notable technical innovation was that made by Luca della Robbia and his family, who produced the well-known ware decorated with glazes of white and pale blue, occasionally reinforced by green and aubergine purple. The work is almost all in relief, though there are a few separate figures, and has long been popular, since it blends so harmoniously the grave sweetness of Gothic art with Renaissance knowledge. Somewhat later, at Modena and in Southern France, a more realistic school of workers in terra-cotta produced those dramatic groups of the Entombment and the like, in which realistic presentation is enhanced by colour. But portraiture,

SCULPTURE

whether in plain or, more rarely, in glazed ware, was the principal field of the worker in terra-cotta right up to the end of the eighteenth century. The busts of Hogarth and of Colley Cibber by Roubiliae in the National Portrait Gallery are accessible specimens of this lively craft, and the latter, as we have seen (II. 8), indicates that sweeping condemnations of realism may be a mistake. In more modern times the sketchy, picturesque treatment which clay permits has been the reverse of beneficial, as we have indicated, in its influence upon workers in bronze (VIII. 2, 14).

Since the middle of the eighteenth century, the technique of Chinese porcelain has been imitated in Europe with considerable spirit and success. The figures modelled by Kändler for the Meissen factory were among the earliest and best of their class. Chelsea, Bow, Sèvres, and Copenhagen are also names familiar to collectors of figurines, but the work done by some of our living English craftsmen and craftswomen shows this dainty art to no less advantage, and must in time have an equal repute (IV. 5).

18. Sculpture in Relief

When a sculptor sets about working on a flat surface of stone or some other material, he relies upon the shadows cast by his incisions to make his meaning plain. The simplest of all methods is the cutting of an outline round the figures or objects presented. In a further stage of the art, the whole background is cut away to an even depth, so that the figures or objects

141

stand out from it as flat silhouettes. Then these flat silhouettes may be made still more significant by the engraving of lines upon them, to represent features, draperies, ornaments, and other details; the corners may be rounded off, and finally the surface may be modified by further tender carving, till the result suggests, on a greatly reduced scale, the projections and recessions of nature. But a relief of this kind, if well executed, will be so gentle in its gradations that it must be placed near the eye of the spectator if its niceties are to be clearly felt. If it be elevated far above the level of the eye, all such refinements will be invisible. More vigorous effects of light and shade will be needed for such remote positions. The figures must project forcibly; they may even approach the condition of free-standing statues, completely relieved from their background.

19. Greek Reliefs

The incised outline work of the primitive Chinese, the slate palettes of proto-dynastic Egypt, the reliefs in coloured plaster from the palaces of Minoan Crete, and the well-known wall slabs from Assyria illustrate the simpler forms of the craft, while the Assyrian hunting scenes prove how completely satisfying this simple work may become if it is inspired by intimate comprehension. This comprehension, together with a more gracious rhythm and a more scrupulous attention to niceties of form, the Greeks developed to an extraordinary degree, as their coins, their engraved

gems, and their funeral reliefs-all things of everyday use-sufficiently show. But where a special effort was made, as in the decorations of the Parthenon, their genius produced the famous frieze representing the Panathenaic procession. In the subtlety, continuity, and variety of its rhythms this frieze remains unparalleled. Yet in one thing the Greek judgment seems to have been at fault, for the frieze was placed near the summit of the great temple, so far from the spectator's eye that its refinements could not be clearly seen. The treatment of the metopes and the pediments on the exterior of the building was more appropriate. The metopes, being in very high relief and of very simple design, and the pediment, consisting of independent figures set against a coloured background, would both be clearly visible from below.

20. Mediaeval Reliefs

The transition from the steadily degenerating Greco-Roman reliefs to the beginnings of Gothic art, is bridged by carvings in ivory. Of these the episcopal throne of Maximian at Ravenna is a conspicuous and instructive example, illustrating the blend of classical and Byzantine motives which inspired the sixth-century sculptors. The richness typical of Byzantine decoration gradually won the day, and was not inappropriate to the small and precious objects for which ivory was generally used. But when these ivories were taken as models by the stone-carvers of a later generation, it was only natural that their profusion of ornament

should be mistaken for excellence, and so the earlier Romanesque and Gothic reliefs in church porches came to be almost always overcrowded with figures. A gradual simplification followed under the influence of Greco-Roman models, and this in Italy developed into Renaissance sculpture. Niccolo Pisano, for example, breaks with mediaeval stiffness by closely following the style of Greco-Roman sarcophagi. His son, Giovanni Pisano, turns from these models to nature, as the Gothic sculptors in France were doing, and so prepares the way for a sequence of masters of carving in relief, from Orcagna and Jacopo della Quercia to Donatello and his successors in the fifteenth century.

21. Renaissance Reliefs

Of these men we can mention only the most notable. Pisanello was the supreme master of design in circular form, whose finest medals surpass all similar work in largeness of design and the art of omitting irrelevant detail. Lorenzo Ghiberti, too, is memorable for his efforts to endow relief with subtleties of atmospheric perspective, like these attainable in painting. Yet all Ghiberti's accomplishment in his famous bronze door of the Baptistery at Florence does not save the result from looking weak and confused when compared with simpler work. Even the mighty Donatello, in his reliefs at Padua, was not wholly successful in combining figures with an elaborate background. But Donatello elsewhere proved himself a master of relief, both in marble and bronze, of such infinite and various power that no other

Renaissance master can compare with him. His range extends from the high relief of the gracious Annunciation in S. Croce to work that is almost ethereal in its delicacy. In the intermediate stages we have such noble products as the Entembment at Padua, a tragic arabesque, and the Contoria for the Duomo at Florence with its wild, exuberant children. The reliefs in glazed stoneware produced by Luca della Robbia and his following are more gentle, gracious, and snave in character. These qualities are coupled with the fine taste in design and colour which is typical of Quattrocento Florence, and show to particular advantage in the noble tombs which Rossellino, Desiderio, and Mino da Fiesole carved. Nowhere has a just proportion between plain surfaces and rich decoration been more tactfully preserved than in these exquisite monuments. The proud contours and spinous energy of Verrocchio, though intensely stimulating in themselves, mark the beginning of a transition to the fluttering slamboyance of the Baroque a century later, by which time the art of sculpture in relief was dying of ingenious superfluity. Flaxman and others at the beginning of the nineteenth century attempted to recapture the simplicity which had been lost, but neither they nor those who came after them achieved any marked success, though occasionally a coin (not usually an English coin) will show some memory of a finer tradition (Plate I.).

A calmer generation may perhaps learn something from the Japanese, who have used birds, animals, and plants as motives for relief, with a lively insight and an

audacious rhythmical balance that entitle them to consideration along with the Greeks and the Italians. In actual mastery of metalwork, as we have seen, they stand alone, while, in their ordered naturalism and their sense of humour, they are far more nearly akin to our Western habits of thought and vision than the sensuous, luxuriant, jungle-growths of India, with all their rhythmic attraction, or the carvings from Africa, Polynesia, and Central America with which, in these days of doubt and disillusion, it is the fashion to experiment, since they are obviously strong medicine, and civilization appears too ill for treatment with the ordinary mild domestic remedies.

CHAPTER IX

ARCHITECTURE

1. Architecture and Building

ARCHITECTURE, though not the most ancient of human crafts, may still be regarded as the mother of them all, since they all have been preserved and developed under her shadow. That protective function was, and is, the primary purpose of building. The roof, the vault, the dome all originate in the need of shelter from the elements; the strong wall and tower in the need of protection from an enemy. Yet all building is not Architecture. Architecture, strictly speaking, only comes into existence when the builder deliberately incorporates with his construction some feature which is not essential to its utility, but which is intended to please or to impress the eye. A rude wall or shed may acquire beauty when patinated by lichen, crowned with stonecrop, or festooned with creepers, but these fortuitous attractions do not transmute it into architecture, although it may actually delight the eye far more than thousands of the pretentious buildings which line our streets. Architecture involves the deliberate and purposeful addition to a building of something beyond the

requirements of mere necessity—added height or bulk, so that we may be impressed by its mightiness; artful disposition of the various parts, so that we may enjoy their rhythm and proportion; enrichment by sculpture, colouring, or precious materials, so that we may experience further aesthetic attractions.

2 The Origins of Building

Sound building, however, is the foundation of all good architecture, and it is from primitive building that the architectural forms which we use to-day have gradually developed. Where caves were available, they provided our distant ancestors with complete shelter from inclement weather, and with reasonable protection against wild beasts or human enemies. But this security was gained at the expense of freedom of movement. Not every district was provided with hill-sides in which caves could be cut or adapted. The best caves, too, might be far from the best hunting or grazing grounds and the most fertile soils. So the stronger and more progressive peoples came to settle in the rich lowlands, sheltering themselves with such materials as they could find there. The climate and their racial habit decided the form which the shelter assumed. Pastoral peoples, migrating from one grazing ground to another, would be content with portable shelters made with poles and skins. Agriculture, calling for relatively permanent settlements, would admit more substantial building. Climate was an equally important factor. In a rainless district a flat roof would serve: in



was plentiful. This slope was naturally provided by any tent-like structure with a triangular section. But as communities settled and increased, this tent-like form would be found inconvenient, as allowing too little head-room, so the triangle very soon came to be modified. If the shelter were constructed of boughs that were pliable, these could be fixed in the ground vertically and the tops bent across to meet in the centre, forming a sort of arch, which when the intervals were duly covered either with skins, as in the Cossack tent, or with reeds plastered with mud, would form a dome-shaped or barrel-vaulted hut. This would allow much more head-room than the triangular tent or gable, but from its relatively flat top would be rather less weather proof. In Mesopotamia, where neither large timbers nor building stone were generally accessible, sun-dried mud was the material first employed. This in due course was replaced by brickwork, which introduced a new building technique. The excavations at Ur have revealed the earliest specimens of the arch; by the time of the Assyrian monarchy the dome had become a favourite form of roofing. From Assyria the use of the dome travelled to Persia, and from Persia to Rome, Byzantium, and the Mohammedan world, the grandeur of its effect on a large scale being enhanced by the evident conquest over material difficulties which such erections involve. For no large dome can be in the nature of a monolith, exerting merely a vertical pressure in proportion to its weight. It must exert also a lateral thrust all round, which has to be counter-

acted by thick walls, buttresses, and other devices (like the iron chain round the dome at Florence) lest the whole structure should spread and collapse.

The arch presents a similar but simpler problem, for there the lateral stress is exerted only where the two ends rest upon their supports. The round arch came into popularity with the Romans, being so grandly and universally employed by them, and by their immediate heirs, that it will always be associated with their empire. The pointed arch appears first in Mohammedan countries, but reached its highest development with 'the so-called 'Gothic' cathedralbuilders in North-western Europe. Its possibilities were then audaciously tested; sky-aspiring vaults being raised upon a delicate framework of columns which appear all too slight for their burden, until we know how the tremendous stress is taken and carried by the great flying buttresses outside. As a marvel of building construction the Gothic cathedral is unique.

5. The Gabled Roof

We have seen how in countries with a considerable rainfall a sloping roof was necessary to throw off the water, and how the pyramidal or gabled tent, while it served this purpose, left very little head-room for its occupants. This inconvenience was met not only by the dome, but also, and more simply, by elevating the whole tent-like structure upon upright posts or walls, the ends of the sloped supports being connected with

long transverse beams to serve as ties. The result would be a log hut, supported on upright posts, with a triangular gable at each end. By recessing the walls, and allowing the outside posts to stand clear like pillars, the builder could provide shelter from the sun and relieve the flatness of a plain façade. The contrast between the light on the free-standing columns and the shadows behind would give the building a picturesque quality, which is one of the first impressions we derive from a Greek temple. For the Greek temple is, in embryo, just such a log-hut carried out in marble and enriched by sculpture. The fluting of the columns represent the channels of bark, the details of the architrave are those of construction in wood, while the flattened gables at the two ends provide the pediments, for which the Greek sculptors executed many of their surviving masterpicces. Owing to its relative lightness and simplicity of working, timber, where it could be obtained, remained the favourite material for roofs long after all traces of trabeate structure had vanished from walls, and in places where the construction of stone or brick vaults was quite well understood. The basilicas of Rome, and the Christian churches modelled upon them, often had timber roofs, though the gable might be concealed inside by a flat ceiling. In Central and Northern Europe, the seasonal falls of rain and snow made a steeper pitch desirable. The pointed gables which resulted, with the lofty ridge of the roof and the dormer windows in it, had picturesque architectural possibilities which builders quickly recognized

and exploited, until the high timber roof and it appurtenances becomes actually the dominant factor in many civil and domestic buildings from the four teenth to the eighteenth century. Now conditions appear to be altered by ferro-concrete and improvements in plumbing. So modern architects, in their desire to add to the amenities of city life, are reverting to the flat roof and the roof-garden. Though the skyline thereby must lose in variety, such roofs can easily be made part of a fine architectural scheme. The real question is "Can they be kept weatherproof, except at an inordinate cost?"

6. The Door

To such primary structural conditions we must add those due to the need for means of entrance and exit, and for supplying light and air to the interior. Doors and windows vary greatly, according to the purpose of the building which contains them. The doors of a temple or a palace will naturally be prominent and stately features, designed to attract and impress the visitor. The doors of a fortified place, on the contrary, will, for defensive reasons, be no larger than bare necessity compels. The vast pylons and avenues marking the approach to an Egyptian temple, such as Karnak, arc the most grandiose of portals; the doorways of the great Gothic cathedrals, encrusted with sculptured reliefs, niches, capitals, pinnacles, and statues are the richest of their kind, surpassing in variety even the most claborate Oriental entrances;

the columned front of a Greek temple gave the best shelter from storm or sun; while some of the doorways planned by the architects of the Renaissance, and their followers, may be held to present the happiest conjunctions of dignity with gracious proportion. Indeed, as we see in many a plain Georgian house, a welldesigned doorway can transmute into fine architecture what would otherwise be hardly more than a bare rectangle of brick. The projecting porch of a Romanesque or Gothic church had the advantage of giving shelter from the elements, and this useful feature is sometimes happily combined with Renaissance design. Where such projection is impossible, either for stylistic reasons or in narrow streets, a deeper recession of the actual doorway is a practical alternative. The door will, however, lose much of its ancient importance if the 'sky-scraper' becomes the standard building of the future, as it then will necessarily be an insignificant feature compared with the windows. Indeed, this change has already come. In the latest types of flat 'and dwelling-house it is often quite difficult to distinguish the door from the other breaks in the wallsurface.

7. The Window

The experience and customs of antiquity with regard to the nature, position, and area of the openings required in a building to admit light and air to the interior cannot be regarded as applicable to our modern needs. The Egyptians and the Greeks were content to

temper the southern sunshine in their important buildings by means of openings, like clerestories, set high above the floor level, so that the expanse of the outer walls was unbroken by any window. In private houses an open central court, round which the living rooms were disposed, provided fresh air for the occupants. The Roman practice was somewhat similar. But in the disturbed epoch which followed the fall of the Roman jurisdiction, every civil and religious building had to afford protection against sudden raids and tumults. Walls of great thickness, pierced only with loopholes or narrow barred windows, may thus extend ten feet or more from the ground level. Higher up, the openings, being less readily accessible, might be rather larger and more numerous.

A central courtyard, which often included a cloister, was still the principal means of admitting air and light to the rooms, and this tendency to make every important building into the semblance of a fortress survived till the seventeenth century, when the developments of gunnery rendered all such strongholds futile. The Gothic cathedrals were the most notable exceptions to the military fashion, for their builders deliberately set aside the fortress-like solidity of the Romanerque style. Delighting in the height, the traceries, and the coloured glories of the window, they expanded and elaborated it until the intervening wall-spaces were reduced to the dimensions of pillars, supporting the vaulted roof and framing a requence of vast pictures in stained glass. The windows in the civil and domestic

architecture of the Tudor period often have a similar spacious character. The Venetians, under Oriental influence, invented some exquisite variations of the pointed arch, to which Ruskin has done justice; but in Venice, as elsewhere, the square-headed window of the Renaissance won the day in the end. Set within an arch, under a pediment or cornice, and possibly flanked with pillars, this form of window can display such infinite variety, and is so universally serviceable, that we cannot wonder that it should have superseded the graceful Gothic forms. Even in the Baroque architecture of the seventeenth century, when buildings in general became restless and florid, the window usually manages to retain its dignity, while still contributing its share of rhythm to the main design.

The future of the window, however, is uncertain. Architects in ferro-concrete seem to think of it merely as one of hundreds of similar rectangular openings in the immense blocks of building which they construct. The latest system is to extend these-openings horizontally till they become practically continuous, and the building looks like a vast sandwich-cake composed of alternate layers of glass and concrete. Extension of the window space in a vertical direction is greatly to be preferred from the architectural standpoint, for the building may then continue to look structurally solid.

8. The Need for Emphasis of Structure

All this insistence on the structural origins and foundation of architecture is essential to any right

understanding of it. A building must not only be soundly constructed, but it must display and emphasize that constructive stability. We cannot all be judges of the strains which timber and stone and brickwork and steel and concrete are relatively capable of bearing, but the eye can never be satisfied or impressed by buildings which look too heavy for their supports, like the ordinary shop fronts in our streets, where a lofty building appears to have no stronger support than sheets of plate-glass. It is infinitely better for an architect to err in the opposite direction, and make his lower courses look more massive than they need to be. He will at least convince us that his building is strong and built for permanence, and that conviction is one of the most impressive sensations which architecture can arouse (IV. 1).

9. Power

The temples of Egypt are famous examples of the impression of eternal strength which can be conveyed by immensity of scale and massiveness in the constituent parts. Man becomes a mere pigmy among the huge columns of Karnak, set so closely together that the effect of their size is redoubled and enhanced by mystery. The Doric columns of a Greek temple, standing out stoutly from the dark shadows behind them, have a similar majestic weight, volume, and stability. Mere enlargement of scale in a building will tend to produce this effect upon the imagination, as when some great wall rises above us like a cliff or a fortress, but the effect will be greatly augmented if some of the constituent parts

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are visibly massive, and testify to the power of the men who quarried such mighty stones and raised them to their appointed place. So when architects have to build with brick or small stones, we find them giving the appearance of power by contrasting these humbler materials with more weighty pieces, as quoins at the corners and as lintels for doors and windows, to emphasize the strength of an arch or the solidity of the whole lower part of the building. Often these great stones are left rough hewn and separated by deep joints, as if the building were founded upon some primeval rock. The Pitti and other Florentine palaces illustrate this device; in London, Waterloo Bridge is a familiar example of the impression of power obtained by emphasis upon large structural units.

The architect has at his disposal a second means of obtaining this result, by vigorously contrasting light and shadow. The contrast is most impressive when the divisions of light and shade are clearly marked, when the lights are broad and the shadows deepen into a darkness which seems impenetrable. This vigour the modern architect may often find hard to secure because his employers, in the effort to economize space, insist upon windows being brought right out to the wall surface, destroying thereby all the contrast and the mystery from which the black empty gaps in a deserted building derive their sinister quality. The hollow arch, the dark recess, and the frowning cornice not only emphasize solidity, but give to any structure a look of vigour which is rarely found in our city buildings of to-day. Their

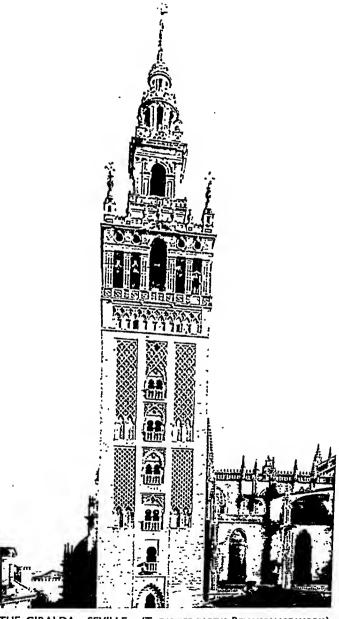
façades too often look flat, tame, or flimsy, as if the design was merely a squeeze upon some great sheet of weather-proof material, instead of being solidly built out of massive brick and stone. The graceful reliefs on some Italian palaces, notably at Genoa, may have set the bad example. The etchings of Piranesi would have furnished far better models, for in them we find some reflection of the colossal scale, the grand massing of light and shadow, by which the builders of imperial Rome displayed their power. Such sensations, at the moment, may be a little out of fashion with the advanced thinker. They are plainly incongruous with the strictly utilitarian purpose, the communal collective ideals, of our modern architectural reformers, to whom they recall those ages of firm government, faith, and order, from which our democratic world is now so happily breaking away.

10. Grace

Indeed, civilized communities are not concerned only with domination. The amenities of life have also to be fostered, and to harmonize with that purpose architecture must include elements of grace. Power will remain the foundation of a building as of a state, but the refinements of the superstructure will be the proof of its place in the world of art. Since the general tendency of building is vertical, this refinement will be apt to take a columnar form—a rhythm of upright masses, rounded or rectangular, more slender, numerous, and varied than the massy supports below, even though, for the sake of harmony, they may have some connexion

with them in style. In classical architecture, the Ionic and Corinthian orders provide this element of grace, as the Doric order provides the element of power. Byzantine columns and capitals developed further refinements, and from them were gradually derived the soaring pillars and arches of Gothic cathedrals. In these we may note two different ideals. The French builders sought for sublimity in immense elevation, the English in lengthy vistas. The French cathedrals are thus somewhat more compact, and soar more definitely and grandly above all other buildings. The English interiors are also impressive, but the repetition of so many columns and arches tends to be monotonous, as we see in Renaissance colonnades, where the succession of similar forms is not in some way varied.

Gothic architecture, indeed, is always slightly prone to lack variety, from the repetition and predominance of vertical lines. In the finest Renaissance buildings this ubiquitous verticality is modified by the strong horizontal rhythms of cornices, string-courses, arches, and balconies, which flow from end to end of each façade, and bind the uprights together with lateral bands into a compact unity. The Banqueting House in Whitehall, by Inigo Jones, is the most completely typical example in England of this Renaissance style, but it is seen to perfection in the Venetian territory, and many buildings in France illustrate its varied application to modern uses. On a much humbler scale, the half-timber work in country cottages often displays the interplay of verticals and horizontals to



THE GIRALDA: SEVILLE. (THE UPPER PART IS RENAISSANCE WORK)



which I have referred, while the gables and windows contribute a pleasant variety to the geometrical pattern. The tall spire of a church, or the slender column of a factory chimney soaring above the heavy earth, are other familiar aspects of this gracious element in common things. Ferro-concrete, at present, rarely attains to grace, although many an exquisite old building—like the Giralda at Seville with its latticed verticals—is there for genius to capture and adapt to modern usage (Plate VI.).

11. Proportion

A good building is an organic unity adapted to a particular purpose, and that purpose may practically determine the relative size and disposition of the parts. Yet in this the great architect finds no disadvantage, but an opportunity for displaying his genius by the subtle adjustment of the parts to the whole structure. These relations of space to space, of curves to straight lines, of mass to slender forms, of plain surfaces to ornament, make the music of architecture, and the power of visualizing them in one comprehensive unity makes the great architect. Equal quantities, except when they are deliberately used to secure symmetry and balance, are as unsatisfying to the eye as in other forms of design; yet a too evident disproportion of one mass to another, like the poor little dome over the great front of the National Gallery, is no less displeasing, and when these spatial relations are seen to be well and truly adjusted within a compact

design, they induce a high degree of pleasure quite apart from the particular style employed. The Parthenon, Palladio's Basilica at Vicenza, the aspiring vaults of Beauvais, the dome of the Salute at Venice or of the Invalides at Paris, the spire of Salisbury Cathedral, might be named as examples of the widely different forms which this self-contained perfection and balance of component parts may take. Many of Wren's churches and some of our old English country houses show the same quality on a humbler scale, but France is perhaps the country where this instinct for clarity of conception is most general, and where they have a natural gift for producing buildings which are not only complete in themselves, but which combine so harmoniously with their surroundings as to make them seem part of some much grander architectural This instinct the native-born Frenchman retains even when experimenting with modern structural ideas.

12. Vitality

As in other forms of artistic invention, the architect's product will have little capacity for stimulating others unless it is lively and spirited itself. The spirit of life may be shown in more than one way. It is a commonplace of criticism to point out that the shafts, the arches, and the ribbed vaultings of a Gothic cathedral resemble the aisles of a tall forest. The association with living forms is carried still further by the sculptured foliage and animals, with which the capitals of columns, and

other suitable features of the building, may be decorated; while, by the enrichment of the sculptured pinnacles, the luxuriant growths of the wayside and the waterside may be vividly recalled. But this application of naturalism to design and to details Is by no means the only process by which the spirit of life may be introduced into a building. The architect, like any other designer, has also light and shade at his disposal, and in some degree colour too. We have already seen how by a broad massing of light and shade he can impart vigour to his creations. That vigour, when applied to details, turns to liveliness, and, to secure it, it is almost enough to cut all shadows as deeply and as sharply as conditions permit, so that the contrast between light projection and dark hollow may be sharp and stimulating. Such decorated portions demand a setting of plain broad surfaces to produce their full effect. Undue profusion, even of the most lively ornament, will give a building a restless, overcrowded look, and by obscuring structural forms may lead us to question its solidity. Flamboyant Gothic and Baroque buildings, deliberately aiming at such richness and movement, often sacrifice thereby not only the stateliness which we expect from fine building, but also its very substance. Their swags and foliations do not appear to be carved in stone, but to be modelled in stucco or putty.

Contrasted colour, as when red-brick buildings have 'trimmings', doors, and windows of white stone, is another source of liveliness of effect, and one which may well be developed in the future, now that natural

stone is so frequently replaced by artificial substitutes. Medallions of coloured marble were admirably employed by the Venetians; there seems no reason why modern buildings should not be enlivened by similar incrustations. Another contrast which might often prove serviceable is that employed by Michelangelo and others when they set white stone or plaster within a dignified framework of pietra serena, much as dark beams are used in our half-timbered cottages.

13. Conclusion

In such a brief abstract it is impossible to study in detail many interesting architectural features like mouldings and traceries, the column and its capital, the staircase and the chimney, or the countless details which a professional architect has to keep in mind. Our thoughts must be confined to the larger truths of architecture, to its structural foundation, to its means of conveying those intimations of power, grace, and life which are the music of the art, and to comprehension of a building as an organic whole, with all its several parts in fair proportion. If we have to make any choice between styles we shall be wise to incline, at first, to what is simple and solid, suspecting the attractions of flamboyant work, whether it be late Gothic or late Renaissance, as coming dangerously near to confectionery. We must recognize at the same time that such ostentatious dexterity does indicate a certain vigour in the designer, even though it be vigour misdirected, and vigour of any kind is the quality which our modern city

buildings too frequently lack. We have still a pleasant tradition of taste in building country houses, a taste which is slowly, very slowly, spreading to the promoters of suburban building schemes, but for spirited and courageous civic architecture we must look abroad. Ferro-concrete construction has not yet passed the stage of infancy and experiment. It can evidently deal with heights and masses and surfaces of a magnitude unattainable with any other material, and so, when some genius finally solves the problem of harmonizing his multitudinous glass windows with the solid parts of his building, may evoke those impressions of power, grace, and life which the older masterpieces of architecture convey to us. Most of the attempts hitherto made at decorating these vast piles look like mere fretwork: it is in the disposition and proportion of the larger units, and perhaps in an extended use of colour, that the way of freedom from the stark monotonous rigidity of engincering will probably be discovered. A photograph of the boiler-house of the 'Mogess' (whatever that may be) at Moscow, and some French concrete churches, seem to indicate that the discovery is already at hand, for those who have eyes to see.

Meanwhile, since we have often to fit new buildings into ancient cities, the need for some sort of harmony between the present and the past compels us still to keep the established modes of architecture in mind, and to recognize that modernist methods and theories, however appropriate to a new community, have their limitations when applied to places already possessing a

long historic tradition. Some fusion of the modern ideals with the older background remains a necessity there. It calls for caution, naturally; but it calls still more for courage. Otherwise the architect will degenerate, as so many civic architects do, into a tedious plagiarist or patchwork maker of text-book styles and orders. Of such courageous experiment the Town Hall at Stockholm may be cited as an example already famous. Not all the details may be approved, but in his handling of problems of space, notably in the hall, and the staircase with its great central column, as in the adoption, for the main mass of his waterside building, of a scheme recalling the Ducal Palace and the Campanile of San Marco, the architect has blended much that is fresh and surprising with a general aspect which makes a notable and harmonious centre for his Northern Venice.

CHAPTER X

CERAMICS AND GLASS

I. The Potter's Wheel

We have already seen how the earliest forms of pottery take the shape and pattern of the baskets, skins, or gourds which first served man as containers for his grain and for his liquids. Primitive vessels were modelled with the help of rounded stones. Then the employment of a table or wheel, which could be turned in any direction, enabled the potter to control his material better. Finally the quick-running potter's wheel was evolved, on which an infinite series of shapes could be produced at will by slight changes in the pressure of the fingers and thumb upon the wet clay. Indeed, there is a singular fascination in watching that moist, shapeless lump grow into a thing of beauty under the potter's touch, so that what was mere gross matter expands like a flower, rises into majesty like a tower, or swells into a graceful vase or flask as its creator chooses. This primary act determines the character and function of the vessel, and, in a large measure, its artistic quality also. Hardening in a kiln, and decoration with glazes, modelling, or painting are all subsidiary to the initial shaping on the potter's wheel (Plates VII. and VIII.).

2. The Three Types of Form

The combinations, variations, and perversions of these three types of form—the flower, the tower, and the flask-at the hand of humanity during some six thousand years have been infinite. Many have a purpose that is merely decorative, and can be judged entirely on their artistic merits. The vast majority, however, have to do practical service of some sort, and all efforts at design and decoration will be misplaced which do not give that service the first place. Cups with deeply fluted, embossed, or scalloped edges, jugs and tea-pots which will not pour out their contents tidily, are familiar examples; as are services of china with ornaments in such sharp relief that the dirt cannot easily be dislodged from the interstices, or with delicate stems, handles, and projections which break on the least provocation. A certain workmanlike solidity and simplicity of form is essential in such utilitarian products. Decorative wares, in theory at least, are not bound by this necessity, but in practice it will almost invariably be found that the finest designs have a similar compactness. Such pieces as cannot be classified under onc or more of these three heads—the flower, the tower, and the flask-must be regarded as curiosities, or as sculpture. These primitive types, if we keep them clearly in mind, will, by analogy, give us no little help in distinguishing at sight between forms which are good and those which are distinctly less good. Let us consider them in turn (IV. 1).

CERAMICS AND GLASS

3. The Flower

The flower-like beginning may be given an extension upwards until it becomes a deep bowl, or on a small scale, possibly with the addition of a handle, until it becomes a tea-cup. Again, it may be made shallow, like a saucer; or nearly flat, like a plate or dish. Its profile will thus admit every kind of curve, and it is upon the flower-like refinement of those curves that its beauty will depend. This refinement is sensibly enhanced by delicate material. The frail bowls of translucent porcelain made by the Chinese have, in this respect, an advantage over the more substantial earthenware and stoneware which other artistic nations have produced. It may be noted that the most subtle forms approach at some point to the stiffness of a straight line; not infrequently, too, they result from a combination of two eurves, a convex eurve below succeeded by one which is concave. These concave forms were admirably used by the Greeks, and by the Chinese, as the eulminating feature of pieces which, in their lower portions, have the noble and pronounced convexity proper to the flask. Though no definite connexion with natural forms is involved in the making of bowls and eups (indeed, actual imitation of the forms of flowers is rarely pleasing), the analogy with them, as we have seen, provides us with a standard of refinement and purity of contour whereby these artificial products can readily be tested and compared. A Greek kylix, for example, may emerge with credit from such an ordeal, while other

Greek vase forms, which it is the fashion to admire, will either be found heavy and barbaric, or will develop a slightly sophisticated look, as if they came from Bond Street or the Rue de la Paix. The plate or dish, as it approaches flatness, becomes more like a roundel calling for painted decoration. The so-called Rhodian and Damascus wares, and Hispano-Mauresque faience, in this decoration rival the more elaborate products of the Chinese, and indeed in vigour of design may be held to surpass them.

4. The Tower

When the potter sets about shaping a great jar upon .. his wheel, the bystander will be conscious of analogies of another kind as he watches the slowly mounting form. He will instinctively see in it the rise of something like a massive building or strong tower. This majestic impression may subsequently be weakened as the forms are stiffened or channelled, or altered by the introduction of incongruous contours at the base or the lip, but it will none the less remain in the memory. The gift of arresting these impressions of power and grandeur of scale has been bestowed upon the Chinesc, and is occasionally displayed by primitive or rustic potters, although their jars of earthenware and stoneware seem to obtain a monumental quality by accident more than by design. In the case of the Chinese some of the formidable dignity of their ancient ritual bronzes no doubt passed into the ceramics derived from them; yet it is not in the ruder wares of the early time that this



THE TOWER

majestic architectural character is most evident, but in the elaborate vases of the Ming period when the craft of making and decorating porcelain had reached its apogec. Indeed, on many of these vases the decoration is almost too profuse, although in superb grandeur of form they are quite unrivalled. This grandeur, though it is enhanced by magnitude (as it is in a building), is yet in some measure independent of it, so that a vase no more than a few inches high may attain an impressive quality like that of some stately monument.

5. The Flask

The flask or bottle-shaped form, with its rounded fullness below and its slender neck, is now generally confined to decorative objects. For travellers it is too fragile or too cumbrous; glass is more convenient for . storing liquids. But when it is furnished with a lip or spout and a handle, the flask develops into the jug and the ewer, and among their countless descendants are the kettle and the tea-pot. Crete, Mycenae, and Greece showed singular taste and versatility in the employment of these useful additions, not infrequently raising the body upon a foot with a slender stem, to make the jug stand firmly, and give it a more graceful shape than a simple band at the base would do. The interplay of the various curvatures thus introduced provided the potter with a variety of delightful motives; hence the jug and the ewer remained things of beauty so long as attention was not distracted from the main contours. But the goldsmiths of the

Renaissance introduced a taste for elaborate embossed ornament, and when this taste was adopted by the potters an immediate decline in beauty resulted. All grace of form was lost or buried under ostentatious sculptural accretions, as the more flamboyant products of the Sèvres factory will sufficiently prove, and Europe had to wait until the classical revival in the latter half of the nineteenth century before the old sense of refined contour began to return. Persia and Turkey had found the simple flask to be an admirable form for painted decoration. In China it was used in the same way, but more frequently as a base for the gorgeous sang-de-bouf and similar glazes which have so important a place in that nation's ceramic industry.

6. The Kiln and the Materials

This is not the place in which the intricate chemical and physical problems of the ceramic industry can be discussed, though we may well wonder at the skill with which those problems were mastered even in remote antiquity, and by peoples whom we call primitive. In working clay, in decorating it, and in maintaining the exceptionally high temperatures which are often required to fuse it into a compact ware, these early potters prove themselves finished craftsmen. The difference in the character of the wares which the potter produces depends, however, even more upon the materials which he employs than upon the process of firing them in the kiln. Certain clays will produce only a rough and rather friable earthenware. Others

PLATE VIII







TURKISH BOTTLE. c. 1575

THE FLOWER & THE FLASK

when exposed to very great heat produce a hard stoneware. Others again, also requiring great heat, produce varieties of the white translucent ware which we term porcelain. Most of these wares call for the addition of the smooth surface known as a glaze, which is imparted by covering the clay, before or during its firing in the kiln, with some metallic oxide or other compound.

The wares of Turkey and Persia, with Hispano-Mauresque faience, belong in general to the first class, having a body which is coarse, brittle, and comparatively soft, but which is particularly sympathetic to glazing with a group of pleasant colours and lustre. The fiercer heat needed for stoneware renders many of the brighter glazing colours useless. Its range of tone is thus more sober and limited, although it has been considerably extended by modern science. Certain clays fire with so fine a natural colour and texture that they call for no special glazing or decoration other than modelled ornament, like the red Samian or 'Aretine' ware so popular with the Romans.

Porcelain differs from other wares in having a white translucent body; and this body may be of two kinds. Hard paste, or porcelain proper, is made with felspar as its principal constituent. Soft paste porcelain is a cleverly compounded imitation, in which the vitreous element is supplied by some form of glass. Porcelain when first fired, comes from the kiln with a matt surface; in this state the ware is known as 'biscuit'. The satin-like lustrous surface is obtained by glazing

and a second firing. Where painting in enamel colours over this glaze is added, the piece must be fired a third time. The decoration of elaborate glazed earthenware may call for a similar sequence of visits to the kiln.

7. Primitive Decoration

The degree of skill exhibited in decorating pottery is no clue to its antiquity. The very oldest specimens of the craft which at present are known to us display a very high standard of taste and workmanship, far superior to that of periods several thousand years later in date. But in general it may be said that all nations in their infancy produce pottery of a simple type, decorating it, as in Egypt, with patterns evidently derived from basket work. These may either be scratched directly into the soft clay, or through some glaze so that the scratches reveal the colour of the body beneath. Again, the designs may be produced on a dark body by means of 'slip', a liquid mixture of lighter clay which is poured on to the ware from a slender spout, just as a confectioner decorates a cake with sugar 'icing'. The designs done with slip are necessarily simple and rather clumsy, though when the process is employed boldly, as in some rustic wares, it can be effective enough. But the limitations of scratched and slip patterns caused them to be discarded in favour of the brush when potters gained experience, so painting of some sort became by far the most usual process for decorating even the commonest ware. The

patterns employed may, for convenience, be classified as either geometrical or naturalistic. Many of the best patterns combine both elements, but the naturalism in them is then contained by a geometrical frame-work, and, as this is the dominant motive of the design, it must be allowed precedence, and the pattern in consequence will come within the geometrical group (III. 5, 6, 7).

8. Geometrical Patterns

Geometrical patterns, when applied to a piece of pottery or porcelain, acquire a new character. Straight lines and curves, rectangles, circles, chequers, and diapers, which look formal and stiff when shown on a flat plane, lose their rigidity upon the curved surface of a bowl or a vase, and, being presented in an evervarying perspective, afford a progression of slightly differing forms which is almost invariably pleasing to the eye. The very earliest wares known to us, from the first settlement at Susa, are admirable illustrations of this characteristic, utilizing the contrast between delicate lines and strong touches of black with an audacious elegance which has nothing primitive about it, and which, in its simple way, remains unsurpassed after more than four thousand years. Naturalism of some kind next ruled the day, with a few bricf intervals, until the Mohammedans, with their pious objection to the presentation of living things, again took up geometrical patterns, and elaborated them with superb results in the many countries which came under their influence. Persia, Turkey, and Egypt in the East and South, with

Spain in the West, are famous for wares in which effects of the utmost splendour are produced by or based upon geometry, allied with fine taste in colour. Passing later to China this geometrical manner sensibly modified the patterns on Ming porcelain, correcting for a while their tendency towards a too luxurious naturalism by confining it within broad bands or panels.

We must note that the charm of these geometrical designs is greatly enhanced by the slight irregularities in force of touch and quality of curve which occur when the forms are drawn swiftly and freely by hand. When such work is imitated or reproduced by some factory process these irregularities are climinated, and, though we can still see that the design is fundamentally good, much of its life and spirit seem to evaporate. The thing becomes a machine-made article, which possibly looks all the more mechanical because of the formal elements of which it is composed. The structure and the coirtrasts remain the same, but the rhythm of the pattern, by acquiring mathematical precision, has become 'no less monotonous than is the blank verse of Pope compared with the ever-varying music of Milton or Shakespeare (III. 2).

9. Naturalistic Patterns

The Egyptians scattered naturalistic motives upon some of their wares, but casually, and with no consistent feeling for any exact relation between the shape of the pot and the pattern applied to it. That feeling, however, was displayed in a marked degree by the potters

of Minoan Crete, who employed both floral and marine motives with singular taste and power; their master-pieces perhaps being the large jars embraced, as it were, by the writhing arms of the cuttle-fish. Their knowledge of coloured glazes and of modelling in relief was no less remarkable, but when their civilization came to an end this knowledge perished with it, and it was only after a long interval that the ceramic art of Greece struggled into existence.

The Greek decorative capacity was first displayed in geometrical designs, usually too crowded to be quite effective, and applied to wares that were clumsy or ponderous. These were succeeded by the 'blackfigure' vascs, on which the legends of their gods and heroes were presented. The form of the vases was most graceful, and the painting usually harmonized admirably with it. But when Greck sculpture became perfected under Phidias, a desire for similar perfection overtook the potters. Their vases became panels upon which pictures might be painted, pictures much more like nature in tone and anatomical form than those on the black-figure vases. So the figures ceased to be black spider-like silhouettes, and became red or white figures drawn with a wonderful sense of human beauty and movement, combined into admirably balanced compositions, and set against a black background. The astonishing skill and iconographic interest of these red-figure paintings has, I think, rather distracted the attention of critics from their relation to the vases upon which they are executed. In their presence we cease to

feel that the pictorial effect and the form of the thing decorated are in perfect harmony, as was the case with the relatively stiff and diagrammatic work of the black-figure painters, and the influence of this misapplied naturalism upon subsequent ceramic design has been all the more hurtful from its association with the unique and well-deserved fame of the Greek genius (V. 4).

Rome preferred modelling to painting. Utensils made of the fine red clay of Arezzo (or substitutes for it), and stamped with graceful Hellenistic designs of flowers and fruit and figures, are characteristic finds in the excavation of any Roman colony. The Middle Ages lost this pleasant craft, and had to be content with much clumsier ware. During the Renaissance, however, Italy made a great effort to revive the potter's art, and the products of Urbino, Gubbio, Florence, Faenza, - and other centres, were decorated with pictures in colour and lustre, often from designs by famous painters. But these semi-naturalistic works, like the Greek redfigure vase-paintings, seldom make fine decoration, and only come near to rivalling the splendour and force of Hispano-Mauresque ware on the occasions when their naturalism is confined by a firm geometrical pattern. Palissy in France displayed great ingenuity in combining modelling in relief with naturalistic colour, but the results artistically are more curious than beautiful, and indeed come perilously near to what we now term lodging-house ornaments. The rare and dainty "Henri II. Ware " was a much more promising effort at combining modelling with tasteful decoration.

During the sixteenth century some knowledge of what the Chinese were doing began to percolate into Europe. The potteries of Delft were first in the field, transferring floral motives from Chinese blue and white porcelain to their local wares, with considerable taste and profit. But the unique whiteness and brilliancy of the Chinese product were not rivalled until after a period of experiment and research. The Dresden (Meissen) and Sèvres factories led the way; Dresden with a true porcelain, Sèvres with its famous soft paste. Unfortunately these potteries were founded at a time when European taste had become florid and ostentatious, so that the grander side of design was neglected in favour of claborate intricacy of shape, profuse gilding, and clever little naturalistic pictures, the whole making a riot of un-co-ordinated rhythms. The factories set up in England and elsewhere inherited this debased Baroque tradition. All over Europe the relation of pattern to form was forgotten. Men simply thought of porcelain vessels as admirable things on which to paint miniature landscapes, groups of figures, or bunches of flowers; a mistake from which the public taste has not yet completely recovered. This naturalistic taste, however, has an undeniable decorative charm when it tends to a geometrical rhythm by confinement within well-designed panels, or by arrangement in scrolls, festoons, or starry diapers; and the charm is usually most pronounced when we find it on things like cups, bowls, and plates which are simple in contour and modest in scale. The classical revival of the eighteenth

century failed to counteract this florid naturalism. Of the efforts made to restore purity of form and design that of Josiah Wedgwood was by far the most notable. His products have at least the merit of being free from the vices of the contemporary fashion, even if, in his following of Greek originals, he imitated some of their defects.

Chinese pottery begins with a mixture of naturalistic and geometrical motives, including elements derived from Hellenistic Greece. When the making of a white porcelain body was perfected in the early years of the Ming dynasty, this mixture gave place to a vigorous naturalism, bold floral patterns being employed with a grandeur and freedom which recall the Minoan stylc. Gradually, as the colours employed increased in variety and brightness, the designs grew more minute in detail and less compact, until at the close of the eighteenth century it was evident that the great period of the art was over; although by the vivacity of their effect many of the later pieces atone in some measure for lack of breadth in the arrangement of the sprays of flowers, the figures, and the seroll-work of which the patterns are generally composed.

Japan could not rival China in making porcelain, but in carthenware she excelled. Floral and other naturalistic motives were brushed in with an audacious good taste like that which characterizes her finest painting, and yet with an unerring sense of the relation between the design and the shape to which it was applied. No better examples of the right use of

naturalism could well be quoted. A similar if somewhat ruder harmony between shape and vigorous brush-work may be observed in many rustic wares, and with the best studio-potters of our own day, although the harmony is now not infrequently disturbed by the use of brighter colours than the browns and other sober tints to which the older stoneware makers were usually restricted. The pieces, too, are generally more decorative than useful.

10. Self-coloured Wares

Though wares decorated only with a coloured glaze have been in use from the days when the ancient Egyptians manufactured their turquoise-blue vessels and figurines, the craft did not really become of the first importance until it was practised by the Chinese. Jade was one of their favourite precious stones, and was adopted as a synonym for their finest ceramic products. During the Han and Tang dynasties a prevalent type of earthenware is glazed with a deep jade-like green, over a body which is often elaborately modelled in a style similar to that of ancient Chinese bronzes. As time went on lighter shades of jade colour, sometimes nearly white, sometimes of the grayer tint known as celadon, and sometimes inclining to turquoise, were produced; giving particularly charming effects when applied to saucers delicately modelled in the Greco-Persian style. During the Ming period a superb range of new colourings was discovered. Of these a purplish-red, known as sang-de-bauf, and powder-blue

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are perhaps the most splendid and famous, but certain greens and yellows, usually seen only upon small specimens, have a no less exquisite quality.

Many of these pieces owe much of their beauty and variety to accidental effects produced by the firing, which has caused the glazes to run and mix unevenly. This accidental quality has been studied and exploited by modern potters, who have now at their disposal an even wider range of colours than the Chinese. How far results which are dependent upon chance can stand comparison with the deliberate creations of a great decorative artist is not an easy question to answer. A happy accident is certainly more delightful than a bad design. But when a design is good, we get a thrill from contact with the designer's personality such as we can never derive from the casual harmonics of colour in any precious substance, whether the fire that produced them burned in some potter's kiln or in the profound recesses of the earth. The finest Chinese pieces have the merit of combining their colour, whether it be partly accidental, or wholly the result of experience precisely and deliberately utilized, with shapes of such monumental dignity that the element of creative design is never in danger of being overlooked.

11. Glass Vessels

Molten glass is a duetile substance which the worker can blow into the shape of a flask, whirl into a disk, roll into a plate, divide and rejoin, twist and model at will, spin into a gossamer thread, colour with opaque or transparent pigments, powder with gold dust, grind to a sharp edge, or engrave with the most delicate and intricate patterns. It thus presents a constant temptation to the glass worker, encouraging him to exploit his mastery of the material until all sense of design is lost. The too elaborate decoration of Nuremberg and Bohemian glass, the extravagant contortion of some Venetian ornaments, and the ponderous ugliness of some of our expensive cut glass, are examples of what misguided accomplishment may produce. The finest tradition of glass is far more simple, relying ehiefly upon purity of form, and upon schemes of decoration which interfere neither with that quality nor with the purpose which the vessel is intended to serve (IV. 1).

Though the Syrians and the Egyptians with their claborate coloured glass have led the way, the Romans were the first nation to bring glass into general domestic usc. The small specimens recovered by excavation owe much of their charm to the iridescence resulting from long burial in the earth, but Roman accomplishment in working and cutting glass cameo-fashion is illustrated by such technical masterpieces as the Portland Vase. This accomplishment passed to Byzantium, and was greatly augmented by new processes of enamelling and gilding after the Mohammedan conquests. Moving westwards, with these Saraeenie embellishments, the craft found a home for many centuries at Murano, from which centre it spread all over Europe. Among the subsequent local industries, that of Cologne became famous for the greenish drinking glasses, taste-

fully decorated with threads and studs, which make an attractive show in so many Dutch paintings. The enamelled glass from Nuremberg, and the cut, coloured and engraved glass of Bohemia, were generally more ostentatious and less satisfactory in design. In England, and somewhat later at Waterford, wine glasses and the like were made with a whiter glass containing lead. These during the eighteenth century were pleasantly decorated with engraving, or by twists of opaque glass in the stem; a tradition which has been revived with excellent taste by one or two British makers, and quite recently has been made the foundation of a notable industry in Sweden. Whether the glass is a pure white or is tinged with green does not seem to matter much, so long as the design and decoration are good. Indeed, a slight tinge of colour often seems to give a warmth and character which quite colourless specimens do not possess. The opaque glass, both coloured and white (in imitation of porcelain), which was made at Bristol and elsewhere, is generally more curious than beautiful, but in our own day semi-opaque glass has a new sphere of utility in connexion with electric lighting, and may well develop into something more than a tasteful commercial product.

12. Stained Glass

The cathedral builders of the Middle Ages brought to perfection a system of making windows out of small pieces of coloured glass, united by joints of lead and braced by iron supports. These 'stained glass'

windows had more than one aim. When executed in pale tones of somewhat similar hue and quality, as at Amiens or York, they served to sweeten and etherealize the effect of the daylight breaking in through the lofty windows, which might often otherwise have looked cold and hard. More commonly a richer scheme was employed. The ground would be some very deep tone, often a blue inclining to black, and upon this a geometrical pattern would be picked out with sparkling touches of white and yellow and ruby-red, as in the older windows at Canterbury, so that the effect was similar to that of some superb Byzantine enamel. With these decorative aims there was blended, from the first, a desire to interest and educate the spectator, by introducing pictures in glass to illustrate scenes from the Bible, the Lives of the Saints and similar sources. The rise and decline of stained glass can best be followed by tracing the growth of this story-telling element. So ong as it remained wholly subordinate to the decorative effect; so long as painting on the glass was restricted to tracing the large contours of the faces and figures, and to the plain delineation of features and essential occessories-all was well. But when the glass painter, n the pride of his craft, set out to emulate the painters on canvas or panel by introducing claborate shading ind detail, he lost the decorative beauty proper to his irt, until we arrive at last at such elaborate murky failures as the window at New College, Oxford, in which an attempt is made to translate quite literally the chiaroscuro of a painting by Reynolds.

The first efforts to regain the splendour of this ancient craft, during the Gothic Revival in nineteenthcentury England, were unsuccessful. The designers had not the necessary technical experience; the material provided for them by the glass-makers was harder and more gaudy in hue than the older glass, which owed not a little of its beauty to accidental irregularities in manufacture. As in the case of tapestry, the improvement which came rather later was due to the enthusiasm of William Morris and the genius of Burne-Jones. The well-known S. Frideswide . window at Christ Church, Oxford, represents the trial stage; in the later windows there, such as the beautiful S. Cecilia, we see their labours crowned with complete success. Exquisite colour and design are combined with a luminosity sufficient to prove that the employment of stained glass need not involve any serious loss of daylight.

That is the common objection to its use in modern city buildings: yet it can easily be surmounted by confining the richly coloured portions to medallions or panels, surrounded by an expanse of glass that is relatively plain, as in the armorial windows of the Tudor period. These panels, as our best contemporary designers show, can become most valuable factors in the general design. Our churches, however, are still burdened, almost everywhere, with a vast unhappy heritage of nineteenth-century glass, and for much of it, being a tame commercial product, there is no remedy except destruction. More vigorous attempts, which

offend chiefly by being too gaudy, may however sometimes be modified by those who are able and willing to disregard convention. I well remember one huge window, for many years a riotous clash of mid-Victorian ultramarine and orange, which after a "restoration' suddenly emerged in sober dignity. Under the auspices of an old and universally respected supporter of the Arts and Crafts movement, it had been discreetly toned' with a wash of lamp-black.

CHAPTER XI

TEXTILES

1. The Loom and its Products

THE vertical threads of the warp on a weaver's loom, when the loom is of the upright form, are interlaced at right angles by the horizontal threads of the weft. The foundation of textile patterns is thus a rectangular crisscross. Every design consequently comes to be broken up, in the course of weaving, into a series of small squares or chequers, which show most plainly when the individual strands are thick and coarse, as in matting or basket-weaving. The conventional and symbolic rendering of natural forms which we find in all early Decorative art must be ascribed, in a large measure, to the influence of such rude textiles upon the other crafts (III. 5).

Later, when technical skill so developed that very fine threads could be spun and woven, the size of the individual squares became so small that their rectangular character ceased to be obtrusive, and they could assume, when ranged in due sequence, the appearance of a curve. Various devices were successively added to the loom to facilitate such weaving, and to introduce a wide range of colours, capable of rendering

even naturalistic effects. Such developments are, of course, appropriate only in the measure of their harmony with the function of the fabric upon which they are utilized, and by that function textiles may most conveniently be classified. Some are woven to hang in folds, like dress-materials or curtains; some to hang flat on a wall, like tapestry; some to cover the floor, like carpets and rugs.

2. Tapestry

In weaving a plain material, the threads of the weft are all carried completely across the threads of the warp. But if the weaver stays his shuttle at some point between the extremes, and continues the weft with a thread of a different colour, he can, by a repetition of the action, produce an interchange of hues which may easily be utilized to form a pattern. And if the weft be made of a soft thick wool, the separate threads may, when pressed by the weaver, so blend with each other as to produce a relatively even tone and surface, under which the threads of the warp will be completely hidden. These are the elements of the historic eraft of tapestry weaving.

The method was known in Egypt in the fifteenth century B.C. It was employed for the sumptuous hangings of Byzantium and Ravenna. Yet even in museums we very rarely see specimens that are older than the close of the Middle Ages, when the designs had almost lost their Oriental character in passing, by way of Germany, to the Netherlands. There tapestry

weaving became a great and famous industry. The designs were generally pictorial; the subjects allegorical, or drawn from history, sacred and profane. The treatment was at first so simplified—so completely in harmony with the nature of the material and its purpose as a wall-hanging—that, until the first quarter of the sixteenth century, the result was almost always admirable. But when elaborate works in a naturalistic style, like the famous cartoons of Raphael, came to Brussels for translation into tapestry, the taste of the weaver was corrupted. He had to develop new niceties of technique to interpret the gradations of light and shade in his new models, and from concentrating his energy upon those proofs of his accomplishment, forgot the secret of his former triumphs. By employing a multiplicity of tones and colours, he lost that definite decorative unity of effect which enables us to describe a masterpiece as, for example, "a harmony in cool greens and browns relieved by passages of rose-red and dark blue", or some similar comprehensive phrase. Where a tapestry, or indeed any piece of coloured work, is too elaborate for any such concise summary we may suspect its colour quality. The French followed intermittently the fashion set by the Netherlanders, until the celebrated Gobelins factory was established by Colbert in 1662. Its manufactures, too, were usually pictorial, but are often so cleverly designed to harmonize with the furniture and decoration of the later French monarchy, as to be one of its most typical and sumptuous achievements. The English tapestries made at Mortlake and elsewhere are similar, but somewhat heavier in style (III. 13).

Towards the end of the nineteenth century the Renaissance of the crafts in England, under the inspiration of William Morris, brought about a revival of the mediacval tradition, and Burne-Jones, in tapestry as in stained glass, achieved some notable results. tapestries produced at Merton from his designs, when they have received the gentle patination of time, should take their place with the fifteenth-century work which is so highly prized and priced by collectors. Even the more florid and pictorial tapestries of the seventeenth and eighteenth centuries lose many of their defects with the passage of years. As paintings they would be pompous always, but the soft texture of the fabric from the first has a sobering influence, and this is augmented as tones fade with age and exposure to light. Contrasts which once were crude and violent may thus be transmuted into superb and harmonious beauty, as we see in the red and gold tapestries in the Royal Palace at Madrid. Yet tapestries, like rich embroideries, are things of luxury with which few of us are likely to have much practical acquaintance; and the real problems of textile design which we generally have to consider, are those which confront us in our houses or in our walks abroad.

3. Carpets and Rugs

The making of rugs and other floor coverings has utilized all the chief processes of weaving, at one time

or another. Some rugs and carpets are woven like tapestry, and depend for their softness and durability upon a west of unusual thickness. More commonly, each crossing of warp and west is reinforced by a knot of coloured wool, the ends of which form the body or pile of the carpet; the minuteness or boldness of the pattern being determined, to a considerable extent, by the number of these knots in each square inch of the surface.

Since carpets are made to be walked upon in comfort, it is desirable that their patterns should be of a formal and stable character, and should be obviously and unmistakably flat. The realistic presentation of such things, for example, as large bouquets of flowers or branching ferns is now usually recognized as inappropriate, but we are more tolerant, for the time being, of modern patterns which confuse our sense of direction by their unbalanced caprice. In these matters the symmetrical and rectangular patterns of Persian and Turkey carpets set an excellent example. They are like richly decorated pavements on which we can walk with entire confidence, because there is nothing in their appearance to arouse even a momentary feeling either that we are crushing something precious under our feet, or that we are being drawn out of our true course by some compelling asymmetry in the pattern. A Persian carpet may have for its ostensible subject a garden or a hunting scene, a prayer rug may imitate the 'Mihrab' of a mosque, but the treatment will be so completely of the heraldic and geometrical character

TEXTILES

proper to weaving, that we can never mistake the plants and animals for real things; nor will their disposition ever puzzle the eye by conflicting with the rectangular lines of the surrounding architecture, which we use instinctively to guide our steps (IV. 1).

So long as he adheres to this, the sound tradition of his craft, the carpet weaver can hardly fail to produce some sort of colour harmony, because he has to depend upon the contrast and iteration of a few definite tints of dyed wool. The well-known rugs and saddle-bags from Central Asia, in which the general tone is a brownish-red or purple, contrasted merely with small medallions or panels of white and deep blue, are not only among the simplest in pattern of all such fabrics, but also among the richest in effect. Modern science. by increasing the weaver's range of dye-stuffs, has increased his difficulties. The new colours are more harsh in effect when they are fresh, and do not grow old with the same harmonious grace as those of former times. The modern 'Oriental' rugs and carpets are thus apt to be but poor substitutes for the real thing, being indeed inferior to some of the clever copies made by machinery from fine ancient specimens. French seem to excel in this copying, choosing better models than the English makers, and weaving rather more softly and sympathetically than the Germans.

In the matter of design the Persians have an advantage over the Turks, in that their branch of the Mohammedan faith does not restrict them to pure geometry, but admits inspiration from living things. So their

most superb effects, while based upon a geometrical structure—large central panels, or arabesques with sweeping curves, being enclosed and stabilized by the strong rectangular framework of a broad borderdepend for their richness upon the tiny shining shapes with which the ground is sown, like the flowers upon a meadow or the stars in the sky. Such pieces, in which large panels are contrasted with a ground minutely decorated, are in point of design the most satisfying of all. In many fine old carpets the conception is less grand, the pattern too uniformly minute, or broken by too many small forms. The type of design affected by the Chinese—a rounded central panel or panels framed by a wide border and set upon a ground that is nearly or quite plain-has the advantage of largeness of style, but calls for exceptional richness of material owing to its very simplicity. But this richness is within the reach of any well-equipped carpet factory, and the modern fashion of using such rich plain material is really safer than resorting to the ordinary European carpet patterns, for these tend to be florid or flaccid even when they purport to represent some established decorative tradition.

4. Dresses and Curtains

Flax in Egypt, cotton in India, silk in China, were all woven at a comparatively remote period, but were not generally adopted by the European world, to supplement woollen materials, until the early days of the Roman Empire. With the rise of Byzantium as the half-way house between Europe and Asia, the style of textile patterns became definitely Oriental. Persia and the Near East during the Sassanian epoch (A.D. 226-642) were the great centres of fine weaving, and their products were not only prized and imitated in Byzantium, but when exported thence set the fashion to all Europe. The general type of pattern was composed of roundels, often containing confronted figures of animals or monsters, the intervening spaces being plain or filled with some simple diaper. The effect of this geometrical style, when the curves of the roundels were interrupted or modified by the folding of the stuff, would naturally be magnificent, and its grandeur was enhanced by the use of only a few colours, green, yellow, red, and blue.

This primary type of design was subsequently modified in two directions. Persia, for a while, merely introduced refinements at the cost of effectiveness. Later, when the Mongol invasions had spent their destructive force, a new style was invented in which figure, animal, and landscape or 'garden' motives were utilized with much greater freedom than was possible on the contemporary carpets. Even the more formal parts of the pattern acquired a novel character. Sprigs of flowers, birds, and insects appear, either as a diaper upon a plain background, or combined into arabesques which may sometimes be naturalistic, in a way that is surprisingly modern, or formal, like the sixteenth century brocades of Europe. For the original Byzantine roundel pattern, as it travelled westwards, had gradually become more and

more geometrical in character, a result, no doubt, of the Mohammedan conquests in Sicily and elsewhere. So rectilinear compartments take the place of circles, elaborated with interlacings and interchanges of colour, and with a rigorous stylization of any living thing which the pattern might include among its motives. Finally, in the sixteenth century, this form of pattern reached its culmination in the brocades and velvets for which Venice and Genoa, the successors to Constantinople as the mart of East and West, became famous.

Such materials, coupled with an increasing flow of silks imported from China, and a tendency in France towards the florid naturalism of Flemish painting, formed the various textile fashions of the eighteenth century. Towards the close of it, the stripe came into favour, proving at once an attraction and a danger. A simple stripe pattern, of some clear tone upon a white ground, offers a most pleasant contrast to the eye, and is relieved of any undue formality when presented on the rounded surface of a dress or a folded curtain. And the formality may be still further lessened by introducing some small motive as a diaper, to break the rigidity of the lines. But when the diaper is so augmented in size, and strength of tone, as to become the dominant part of the design, the stripe, sinking to insignificance, may become more of a hindrance than a help to the general effect. The striped and beflowered wallpapers in common use all over Europe, about the year 1850, are examples of the results which follow.

The opening up of Japan in 1868 introduced Europe

to a new range of Oriental patterns, in which a grandenr het unworthy of the Byzantine age was allied to singular delicacy, observation of natural forms, and a tarte which, if capricious, was none the less delightful, The immediate effect upon European textiles was, however, quite negligible compared with that which Japan exerted upon the graphic arts, for it was superraled almost at once by the revival of interest in more traditional design, and the new applications of naturalism, which we owe to William Morris. Yet the latest movements in pattern designing arc, consciously or uncontriously, taking a direction very similar to that of the Japanese, although the motives are frequently becrowed from modern industry and its products, rather than from the birds and plants and flowers which have hitherto served the weaver's need. And since Decorative art is a thing complete in itself, having no necessary concern either with the sources from which it draws its inspiration or with the representation of anything in particular, this extension of the patternmaker's field will be a matter for congratulation rather than regret, so long as the field is cultivated with a due regard for the simple conditions which govern all good design (III. 17, Plate III. b).

5. Printed Fabrics

Though textile patterns in general have been developed by the weaver and the embroiderer, they have long been reproduced in humbler fashion by means of printing upon the surface of the fabric. This craft has

almost invariably succeeded best when its aims have been simplest. No printed material can have the splendour of surface and texture which is found in a rich brocade or damask. Its natural charm is of a lighter and less elaborate kind. One or two tints of fresh colour, with perhaps one darker tone to give accent and contrast, are enough to exhibit the craft at its best. The patterns favoured for women's frocks show every variety of spot and sprig, of check and stripe and diaper, used with complete success. More complicated floral designs may be equally attractive, unless they attempt to render naturalistic light and shade; then their quality speedily declines. This decline is particularly noticeable in fabrics like chintzes and wallpapers, where the temptation to employ a whole series of printings is greater, where the result is not subjected to the same intensive criticism which women devote to their dresses, and where the material may be displayed upon a relatively large unbroken surface. Morris, was particularly skilful in weaving natural forms into admirable decorative patterns, by the avoidance of realistic light and shade, and the best designers of the last fifty years have followed his example. Yet the liking for realism dies hard, and bad patterns in consequence arc still multiplied and sold by manufacturers who have not kept in touch with modern developments of taste. On the other hand, many modern designers of the patterns commonly termed jazz, while they succeed in stimulating us by sharp contrasts of form and tone and colour, too often achieve their success at the cost of

TIXTILES

structure and rhythm. We may not miss these qualities were much if the material is cut up, and used in small quantities for a frock, but when such a pattern is seen in any considerable mass, as in a curtain or a wall-paper, its deliciencies will be evident.

CHAPTER XII

METALWORK, WOODWORK, AND PRINTING

1. Bronze and Brass

When man learned to introduce a small proportion of tin into melted copper, he was making an almost sensational discovery, for the resultant alloy, which we call bronze, was not only hard enough to provide him with efficient armour and weapons, but would serve for chisels and tools for working other materials, and could be wrought into an endless variety of utensils and furniture for everyday life. The Egyptians, it would seem, could so harden bronze that it could be used for carving even granite; the Greeks learned to cast it into a thousand dainty moulds, as the lamps and mirrors and furniture in the Naples Museum abundantly testify. Many of these objects are too florid in their decoration to suit our Northern taste, but there are also plain and practical pieces, which still remain impeccable models of what good metalwork should be. In China, meanwhile, ritual vessels of a very different type were being cast and chased. The early forms are ponderous, and to Western eyes may appear somewhat grotesque, but in the finer specimens weight is allied with grandeur, and the grotesque with a vitality so formidable as to

compel respectful admiration. Greek influences may have helped to modify this primitive grimness, but did not corrupt the national style. The bronzes of the Tang and Sung dynasties echo the older forms, but are so superbly patinated, and inlaid with gold and silver, as to deserve a place, as objects of art, with fine Chinese porcelain.

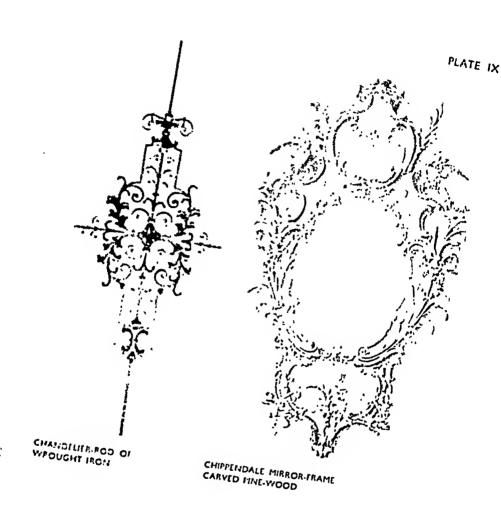
The Greek style, after the conquests of Alexander, penetrated even to Japan, while the more intricately chased products of Persia and the Near East travelled westwards through Byzantium, and thence, by way of the northern metalworkers with their scrolls and spirals and interlacings, were passed on to the mediaeval craftsmen. The "Gloucester Candlestick" at South Kensington, and the still more splendid "Tree of the Virgin" in Milan Cathedral, are specimens of what these men could achieve. Their enthusiasm once more breathed life into bronze, and the craft was perfected by the Renaissance sculptors, who displayed exceptional skill in designing and chasing the ornament on their busts and statues and reliefs. The spinous foliage on Verrocchio's Medicean sarcophagus is a superb example, anticipating the Baroque style which was to follow a century later. Skill could be retained, but not that fiery inspiration. In the days of Louis XIV. and his heirs, the cleverest bronze-workers in Europe had fallen to spending their talent on such things as ornamental scrolls for French furniture, and it was the Japanese who maintained the honour of the craft. With them, particularly on their sword-guards, the

metal was employed with a refinement of workmanship and a boldness of design which, even now, we do not appreciate as generously as they deserve. In no other form of handicraft, not even in its marvellous lacquer, is the genius of Japan so completely displayed as in these little masterpieces.

Brass, an alloy of copper and zinc, has a less ancient and distinguished tradition. From its resemblance to gold it has been employed, ever since the days of Imperial Rome, as a cheap substitute for that metal. As the sepulchral 'brass' over a grave-stone, it has done notable service to our knowledge of mediaeval armour and costume. Yet, in general, it is more properly associated with ewers, and candlesticks, and similar things domestic and ecclesiastical. Since brass has such a rich natural colour and surface, these articles are usually most effective when the forms are kept simple, and decoration is reduced to a minimum or suppressed altogether (III. 10).

2. Iron and Steel

When iron superseded bronze as the material for weapons of war, the armourers quickly learned to employ its tensile strength in the making of mail, to hammer it into plates for helmets, and to temper steel for sword blades. When this experience was turned to civil and ecclesiastical use, the results were at once apparent. The smith who was commissioned to make the hinges for a door or a strong box, a holder for a lamp or a banner, a railing for a palace balcony, a



USE & ABUSE OF MATERIAL

grille or chancel gateway for a church, could manipulate the material with ease. A fantastic animal, a branch of foliated scroll-work, came as naturally from his hammer as the most intricate geometrical pattern. Moreover, wrought iron seems to be one of the very few materials in which a considerable degree of elaboration does not offend the eye. Possibly because the substance itself is somewhat austere and does not encourage trifles, even the Baroque ironwork of the seventeenth and eighteenth centuries, enriched with ornaments in hammered plate, is handsome and effective, though if the design had been carried out in any other material an exacting taste would have found it too restless and florid. Some of the finest examples are to be found in Northern and Central Italy. Our English taste is generally more severe, but, even in such simple things as the fanlight over a street door, displays consistent beauty. Cast iron is far more brittle than wrought iron, and must generally be heavier in its forms. It has been well used for such simple things as fire-dogs, and occasionally by men like Alfred Stevens, who designed the lion on the railings of the British Museum, but is not really an artist's material (Plate IX. a).

Steel, on the other hand, now that its tendency to rust is being counteracted, may well have an artistic future, but that future will lie less with the studio craftsman than with the architect and the engineer, who have factories and machine tools to help them. Even the modern experiments in making chairs, tables, and the like from tubular steel, call for more than mere manual

and muscular strength. The result may be that this supersession of actual handicraft by machinery will prove fatal to the expression of personal fancy and spirit which makes wrought ironwork such a pleasant thing. Yet what the armourers of the fifteenth century did with steel on a small scale, may come to be done on a grand scale by the engineers of the future, who, like the architects, may find relief from shapes that look stark or monotonous by using colour adroitly. The hangar of an aerodrome might thus acquire the iridescent beauty of a great sea-shell; a suspension bridge hang high in air like a necklace of ivory, coral, and lapislazuli.

3. Gold

Gold, being a rare and splendid metal, was from the first a possession for kings and princes. It was a tractable metal too, capable of almost infinite refinement as a wire or a foil, so that when the royal craftsmen set to work upon it five or six thousand years ago, they were able to produce ornaments which still astonish us by their delicacy and accomplishment. Pre-dynastic Egypt, for example, has left us the well-known handle of a flint knife at Cairo, wrought in the finest beaten gold; the royal burial pits at Ur have recently revealed the still more exquisite skill of the Mesopotamian gold-smiths. The famous Vaphio cups in repoussé work, with their lively scenes from the hunting of the wild bull, form a link between Minoan Crete and Mycenae, where gold for the first time appears to have been

METALWORK, WOODWORK, AND PRINTING

almost plentiful. It was wrought, however, with greater skill by the early Etruscans, who surpassed even the Greeks in the delicacy of their ornament. Somewhat later fine torques and armlets in a larger style were produced by the Scythians and other northern nations. Gold was now becoming a common medium of exchange, and so was employed by the Greeks in their coinage, with a sense of design and of physical beauty which no other age has rivalled.

But as the mass of the world's gold was increased, its artistic usefulness became imperilled. The rich colour and resplendent surface of the metal show to the best advantage on a small scale. When used in large quantities it becomes florid and ostentatious, a defect which is noticeable also in large objects of silver or other materials which have been thickly plated with the more precious metal. Such things look best when the gilding is partially worn away, as we see in the case of picture frames. Indeed, so long as we have enough of the metal left to make gold leaf for our common decorative wants, we need not, as mere artists, regret that the bulk of the world's gold should now lie buried in French and American bank-cellars. From the point of view of the craftsman, gold has another serious disadvantage. It accepted value as a common medium of exchange has invariably caused almost all the notable specimens of the goldsmith's art to come, in times of crisis, to the melting-pot. The artist who works for immortality would therefore be wise to choose some . humbler material. Yet certain gold cups and other

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vessels, which have survived the turmoil of the Middle Ages and the greed or desperation of later times, exhibit so much beauty that the lively artistic temper may be forgiven if, now and again, it tries to emulate them.

4. Silver ;

The Greeks and their neighbours in the Near East were the first to use silver extensively, in each case endowing the products with their particular genius. Perhaps the most splendid relics of their craft are the dishes and flagons of the Sassanian epoch in Persia, decorated with vigorous rhythmical hunting scenes, usually in repoussé work. The next great development came from Byzantium, where the working of silver and other metals was continually elaborated, not only in the matter of casting, welding, hammering, and engraving, but particularly in the extended use of enamel and the setting of precious or semi-precious stones.

These methods of decorating metal had been practised long before in Egypt, Mesopotamia, and Scythia, but in Byzantium, and in the western cities which received the Byzantine culture, it became a considerable industry. The sumptuous fashions of the time, allied with the desire to embellish church fittings and furniture, led to the making of the most elaborate enamelled jewellery, crosses and the like, including ultimately such tours-de-force of craftsmanship and colour as the altars in S. Ambrogio at Milan and S. Marco at Venice.

Architecture dominated all the arts and crafts during the Gothic period, including that of the silversmith. The shrines, reliquaries, and monstrances of Gothic times are thus made like miniature buildings, with steep roofs, pinnacles, traceried windows, pointed arches, niches, and statuettes, all wrought with wonderful skill. Yet they somehow convey the impression of being toys when they are small, and of excessive elaboration when they are large, this latter impression being heightened when the silver is enriched by gilding. The skilled metal-workers of Germany were never quite able to rid themselves of this taste for intricate ubiquitous ornament, but in Italy it was superseded, at least for a time, by the broader and simpler Renaissance ideal. This new movement finally culminates in achievements like the Farnese casket at Naples, and that of Clement VII. in the Uffizi, where silverwork, cameos, and gems are combined with an architectural sense that is conspicuously lacking in Cellini's famous gold salt-cellar at Vienna, or the technical masterpieces preserved at Dresden. At this point, the middle of the sixteenth century, silver in Central and Southern Europe was becoming so florid, so overloaded with ornament, as to be hardly less open to criticism than similar work in gold. It may be well, therefore, to turn to the development of the craft in England.

Owing to the destruction wrought by civil wars and necessitous princes, the relics of early English silver are rare, and, to the unpractised eye, exhibit no national traits, except perhaps a greater simplicity of

form, and a more sparing use of ornament, than were favoured by the countries from which, in turn, our silversmiths derived inspiration. For example, an Elizabethan rose-water dish may be engraved with arabesques of singular beauty, varied by panels of excellent repousse work, giving a total effect of richness and dignity, while an ewer of the same period may copy all the faults of Cellini and none of his merits. So it is not until the Jacobean period, with its graceful standing cups and other fine products, that the national 'taste becomes settled, only to be interrupted by the Civil War, and a reaction under Charles II. to more florid models. This style soon grows ponderous owing to Dutch influence, and then, like the contemporary furniture, is gradually refined. Through all these changes the tankard alone preserves a simple dignity, as befits what is perhaps our most truly national drinking vessel.

The discovery about 1760 of Sheffield Plate, in which a sheet of silver is united with a sheet of copper by heat and pressure, happened to coincide with the revival of interest in Classical art due to excavation at Pompeii and Herculaneum. The designers of Sheffield Plate, with the example of the brothers Adam and of Flaxman before them, were thus able to attain a singular purity and grace of form, which occur also in the silver of Paul Lamerie, and mark the culmination of English craftsmanship in this field. Here we find the fine colour and substance of silver utilized as they should be, in alliance with a variety of the most graceful shapes,

and decorated with no more ornament than will make a contrast to the plain surfaces, and save the total effect from being puritanical. Though much delicate work was done elsewhere, it was not done with the same consistent feeling for style that this English silver plate reveals (III. 10).

A century of florid ostentation followed, but it is refreshing to see our fine native taste revive in the work of some modern English craftsmen, although even now they do not seem to get a tithe of the appreciation which their work deserves. Our shops are still full of showy pieces of 'presentation' plate, mere machine-tooled castings of models which were never of the finest order, while other nations, like Sweden, under more enlightened patronage, are steadily going ahead.

5. Woodwork

In almost every country where civilized man has settled, timber has been plentiful; it can be worked with simple tools, it can be enriched by carving, polishing, painting, inlay, and veneer. When protected from the weather it will last for centuries, and, since it is a bad conductor of heat, it is a more comfortable substance for furniture than metal or stone. The one structural precaution which has to be observed in working wood, is to avoid cutting too much across the grain, and so-leaving portions which easily split off. All Baroque curves and flourishes, of the type which Chippendale and his contemporaries introduced into English furniture, all the elaborate foliage carved in the

style of Grinling Gibbons, whatever their fame and market value, are thus intrinsically bad craftsmanship, and differ only in the degree of skill which they exhibit from common fretwork ornaments (Plate IX. b).

It is quite impossible in the space at our disposal to deal with such interesting subjects as the development of the simple chest or aumbry into the cupboard, the chest of drawers, the cabinet, the bureau, and the bookcase. All we can do is to glance at a few of the methods by which plain carpenters work has been transformed into a thing of beauty.

Woodcarving, like so many other crafts in the age of the Gothic cathedral builders, started with an ecclesiastical bias, and its products followed, sometimes with a total disregard of the material, the traceries and arches and foliated ornament of large buildings. The flat pilasters and ornament in low relief of the early Renaissance provided the wood-carver with safer models, and the Italian work of this period is second to none. The Italians, too, went further than the rest of Europe in enriching such work with stucco ornament, with gilding, and with pictures in tempera and intarsia or inlay, so that their choir stalls, their cabinets, and their elaborate wedding chests or cassoni, are things of great beauty as well as of most admirable handicraft.

Then in the seventeenth century the Baroque period set in. France, under Louis XIV. and his successors, was deeply infected, and set the fashion to most of the Continent. England had a brief touch of the malady under Charles II., then with the coming of Dutch in-

fluence she produced those 'Queen Anne' chairs and settees, which combine solidity with good looks to an uncommon degree, at a time when taste in woodwork elsewhere was becoming extravagant. We may admit the exceptional skill which produced furniture like that in the Wallace Collection; we may enjoy the movement and vivacity of its curves, the splendour of its vencers, the richness and fine craftsmanship of its gilded mounts, the delicacy of its inlay and marquetry. We may admit, too, that only pieces of this rather flamboyant character would harmonize with the walls and ceilings of the period. But in any other setting such things are seen to be uncomfortable, if not quite unserviceable, and not seldom almost vulgar in their pretentious elaboration. The worst excesses of the Chippendale group are modest by comparison; the best English work of the time deserves the credit which it enjoys for fine proportion, fine material, and plain, serviceable dignity. The same qualities are now deliberately studied by our best furniture-makers, who, cither by a sparing use of inlay or by a frank use of paint, succeed admirably in suiting a great variety of modern interiors, and by the help of synthetic wood are trying to meet the problem of warping, which, with the disuse of open fires, is becoming troublesome. Woodcarving as a serious art seems, however, to have fallen into abeyance, being practised only by amateurs who make clumsy imitations of old patterns, or by professionals who imitate them more skilfully for church decoration, at so much per foot. As we have come to

suspect all crannies which may harbour dust, our craftsmen are probably right in their preference for paint or for inlay, when plain woodwork is not enough.

6. Printing

In a brief summary like this, it is impossible to discuss many crafts, such as lace-making, embroidery, and jewellery, which figure considerably in everyday life. But it would be wrong to pass over the art of bookproduction, by which the thoughts of modern and ancient civilization are recorded and made common property. We have no longer those long peaceful years of monastic leisure, in which it was possible to copy a book in choice manuscript, and adorn it with such splendid illumination as that which we admire in the Book of Kells at Dublin, or the Lindisfarne Gospels in the British Museum. These may be taken as representing high-water marks in mediaeval book-production, as the French and English MSS, round about the year 1300 show the Gothic style in perfection. With the coming of the Renaissance, the miniature, which had hitherto been a decoration, achieves independence as an illustration, and great beauty too when executed by artists like Hubert Van Lyck, Pol de Limbourg, and Jean Fouquet. But the unity of the book as a decorative whole was broken up thereby, and the manuscript was in its decline when the development of the new art of printing brought it to an end for all but ceremonial

The next problem of the printer was the outmost a

and had fashious reigned for more than fifty years. In England the revival of the Caslon type by Charles Whittingham was the first rign of grace, and his example was followed by several printers and publishers who desired better work than the printing trade in general was capable of providing.

Then printing, like other crafts, had to submit to William Morris. With a mind equipped by the study and posserion of fine mediaeval manuscripts, his first experiments combined wood-cut decoration with a type of the Caxton style, bared upon penmanship. Further consideration led to the designing of a new type founded on Venetian models, while the attention he devoted to the placing of the type on the page, and to good presswork, led to a new conception of the dignity of the printer's craft. His 'Kelmscott' Press was followed

by the 'Vale' Press, for which Charles Ricketts not only designed three new founts of type and numerous decorations and wood-cuts, but engraved them with his own hand. Lucien Pissarro, in his 'Eragny' Press books, displayed a similar combination of talents, and, with the help of his wife, was his own printer too. Ricketts and Pissarro also designed most charming cover papers for their books; yet these illustrated or decorated volumes were still far apart from everyday printing. The bridging of the gulf was begun by the 'Ashendene' and 'Doves' Presses, and was practically completed by three founts of type designed by the erudite Italian scholar Herbert Horne. The first of these, the Montallegro type, designed for the 'Merrymount ' Press of Boston and admirably used by its controller, Mr. D. B. Updike, has had an immense influence upon fine printing in America. The second and third founts, the Florence and Riccardi types, were also models, both fine in themselves and well adapted to printing modern books.

France and other countries have not been slow in following these good examples, and though William Morris would have been horrified to think of books being set up and spaced by a 'Linotype' or similar engine, he would, if he were now alive, recognize that printing, even when aided by these mechanical devices, is infinitely more of an art, and a fine art, than was the case in his own day. Not that vulgarity and ignorance are dead. Our newspapers and magazines every year become more and more a barbarous medley of

ill-designed types, heterogeneous process blocks and gaudy 'insets', so that it is often difficult to find the needle of fact in such a haystack of advertisement. And while our art schools and technical schools, year after year, turn out thousands of students who have been taught the difference between good lettering and bad, that elementary knowledge does not seem as yet to have penetrated the heads of many local and similar authorities, who, in their street names and other public notices, continue to use a style that is neither beautiful nor legible, and compares very ill with the fine work on Roman lines for which artists like Mr. Johnston and Mr. Eric Gill have long been famous.

The relation of the illustration to the printed page remains the great problem of book production. When it was only possible to illustrate books by wood-engraving of a simple kind, harmony came of itself, as the Hypnerotomachia proves. The chief modern presses secure a similar harmony, either by using wood-engraving, or line drawings made in its likeness, to blend with the type. But such simple engravings and line drawings cannot be used for the majority of books; they need photographic reproductions. Such reproductions must generally be printed from half-tone blocks, which require a very smooth or coated paper (of doubtful permanence) to bring out their quality. If the illustrations are numerous they must be printed with the text. Then the whole book has to be on shiny paper, and any attempt at harmonizing the pictures with the type must be unsuccessful. If the illustrations are printed as

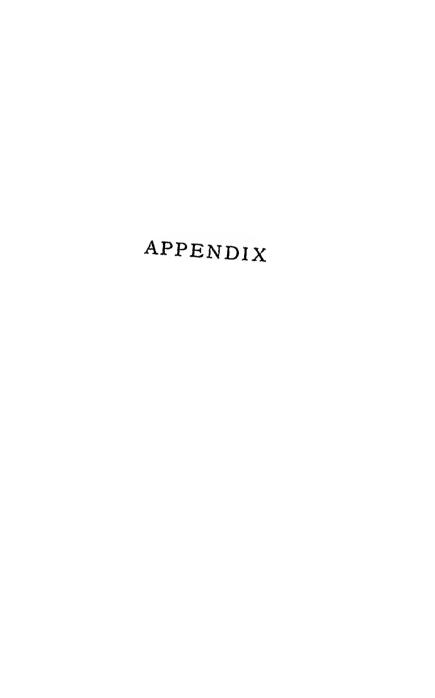
separate plates, the pages of type can remain unbroken, and if the plates were placed in a group at the end, we might then have a well-printed book with a sort of illustrated supplement attached to it. This seems the right solution to the problem, if the public could be brought to accept it, for paper-makers may some day be able to invent a paper which will print half-tone blocks perfectly, and yet will have a permanence not inferior to that of the papers used for letterpress.

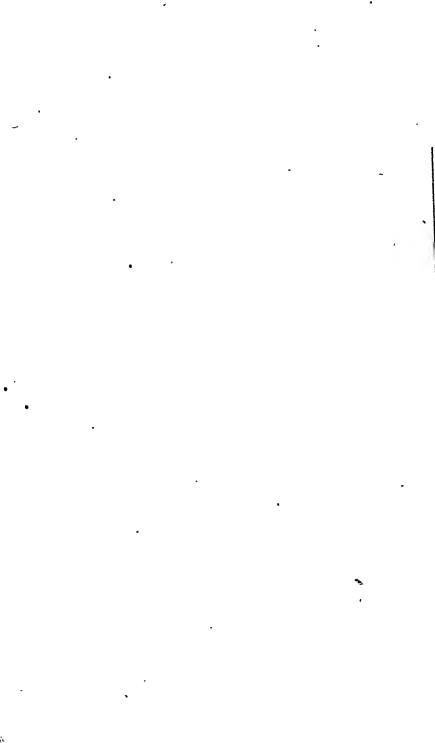
7. Binding

Bindings of carved ivory, of jewelled metalwork, and of rich embroidery fell into disuse when books came to be kept side by side in a book-case. Stamped and tooled leather remained the recognized coverings for volumes of value, and when the art of gold tooling was learned from the Saracens, bindings in Europe became things of uncommon beauty. The delicate arabesques, the insets of coloured leather, and, more rarely, the sunk panels which give such splendour and variety to Persian bindings, came into Europe by way of Venice, to be ordered and simplified there by the grand Venetian taste. The resultant style travelled from Italy to France, where it was developed by a series of craftsmen of whom Eve and Le Gascon perhaps were the most notable. England, too, produced some solid formal work, and some (still finer) in which the designer lays out his gilded flower sprigs with all the well-controlled profusion of the Persian carpet weaver. During the eighteenth century our bindings grew more sober;

METALWORK, WOODWORK, AND PRINTING

during the nineteenth, both England and France were overwhelmed by mechanical gaudiness. Yet some excellent plain morocco binding was done by Holloway and others, so that when Cobden-Sanderson, under that all-embracing influence of William Morris, introduced a new freedom and freshness of design, he had not to re-create a technical tradition. A few designs by Charles Ricketts also appeared to open the way to a fresh range of pattern-making. Though the craft has ever since been practised with skill and assiduity, it does not seem, as yet, to have learned as much from these pioneers as we might perhaps have expected. Publishers' bindings in cloth have naturally received more general attention, but there the cost of printing any large design in gold has become prohibitive. Until that difficulty can be overcome, a publisher has to be content either with simple cloth and well-designed lettering, or with half-binding and a paper label, and so leaves little or nothing for the artist to do.





APPENDIX

THE THEATRE OF PAINTING

More than twenty years ago, in The Science of Picture-Making, I described painting as "Personal experience . summed up by emotion in terms of flat decoration ". That unlovely, composite phrase still seems not inapt, so far as the individual artist is concerned. But if some alternative be required to suit these days of collectivist ideals and abstract theory, we might experiment with "The rhythmic arrangement of fictive volumes in light and space upon a flat surface". Though it seems almost equally appropriate to a railway bookstall, this second phrase may have its use as a starting-point for another expedition in search of clear thought about the infinitely complicated business of painting. To visualize the possibilities involved, let us think of our painter as the manager of a little theatre or puppetshow, with the stage for his canvas and the proscenium for his frame. What variety of entertainment can he provide for 115 ?

We may ask him to begin with the simplest kind of toy theatre, where the figures and properties are all cut out of gaily coloured cardboard, and lighted from the front so that no cast shadows are seen by the spectator. Let the figures all be in a row, equidistant from the footlights, cut so as to exhibit only their broadest aspect to the audience, and shown against a plain white curtain or back-cloth. If we wish to increase the number of the figures, a second and

a third row can be placed behind, so that the spectator, if seated with the gods in the gallery, can see the feet of the back row over the heads of the row in front. If we wish to give any figure special importance, he can be made much larger than the others. In this fashion he will present to us a Cheops ordering his slaves or a Rameses marshalling his armies.

Many centuries later, when the focus of civilization had moved from Egypt through Greece and Rome to settle at Byzantium, a similar treatment would still represent its art. Christ, the Lord of all things; the Virgin, Mother of God; the Saints, and the sacred Emperor of the East, though dressed in more gorgeous robes than the Egyptians, and of more consistently gigantic stature, might still be represented by great cardboard figures, now shown full-face and immobile against a curtain of gold or deep blue. The full effect of their height would be most apparent from the stalls. The early Buddhist paintings of China and Central Asia might also be rendered in similar fashion, though the sinuous involution of their forms, and their fusion, at certain points, with the background, would make them much more difficult to cut out and to colour. In this Byzantine work we notice, for the first time, a definite effort at Design, the great figures having a relation to the background which is deliberately calculated to enhance their grandeur, or sweeping robes which, when the figures are set side by side, suggest a majestic processional rhythm. Similar qualities are attained by early Sienese masters, like Duccio, and appear, much less consistently, in the 'Ikons' of the Greek Church.

The Egyptians had been content with mere brightness and multiplicity. Brightness and multiplicity are elements of Persian painting also. But here, to continue our theatrical parallel, the spectator, seated in the gallery, will look down upon a stage covered with grass and flowers, wherein most delicately cut figures of men and horses divert themselves, with perhaps the stems of two or three trees to stand

APPENDIX

for a woodland, one or two rocks to stand for a wilderness, while a spangled kiosk will do duty for a palace. All is presented on a minute scale, all decorated with gilding and the choicest of colours. The little figures will be drawn with the utmost delicacy, and combined into a motley of graceful shapes, an exquisite disorder, which is singularly natural and engaging, the colour combinations being so delightful as to make us oblivious for the moment of the lack of any large unifying rhythmic principle.

For Japan similar flat figures and properties will serve, but their disposal will call for much more science. The spectator's position will be in the Upper Circle of our imaginary playhouse: he can see the whole of the stage receding to the horizon, but one figure may partially obscure the figure behind it, and the lower part of the back-cloth, which serves for the sky, will usually be visible. The pattern presented by the figures and objects on the stage is now the designer's paramount concern, and inclined lines of recession, made by the bases of walls and other rectangular forms, play no small part in it. The diminution of distant objects by perspective is recognized not inadequately, though not with exact geometrical science. This decorative craft of disposing flat silhouettes in space is hardly less comprehensive than art in Europe: it includes mythological and religious subjects, interiors with figures, landscape, portraits, animals, and flower pieces. Many of these, it is true, are interpreted by the Chinese method of drawing in monochrome, and must be judged by the general canons of brush drawing; but the works with which the world is most familiar are colour-prints, and the screens and paintings from which the colour printers must be held to have derived their inspiration. The lighting, in these cases, will generally come from the front; though the effects of fusion and mystery obtained by some of the Buddhist artists call for a more varied and mobile illumination, similar to that needed for Baroque painting.

Landscape, as interpreted by these Japanese colour printers, deserves particular notice. In audacity of rhythm and force of decorative colouring their products are unique. The process employed compels the artist to limit himself to comparatively few pigments, used generally in broad masses. This simplification of colour involves a corresponding simplification of form. Since realistic modelling and complex gradation of light and shadow are unattainable, only broad silhouettes with firm but subtle contours can be utilized. Yet such is the suggestive power of colour that, when deftly combined, these simple elements develop a surprising range of mood. The gay, the splendid, and the sombre aspects of nature are all within their scope, as Pieter Brueghel, the single landscape artist in Europe to work on a similar principle, has also shown. Holbein in portraiture illustrates the same truth. Yet this engaging eraft of patternmaking with coloured silhouettes has considerable limitations. We cannot suggest by Japanese methods the volume and movement of great clouds, floating above us to or from the horizon, or the play of wandering sunshine over the country below, any more than we can render the monumental substance and mysterious lighting of a Rembrandt portrait, or the momentum of some great figure sweeping through space at the call of Rubens or Tintoretto. Nevertheless, we have not yet ascertained how far these disabilities of the silhouette may be modified by a shifting type of illumination. The results obtained by Brueghel in the past, and by Whistler and Gauguin in more recent times, show that further exploration in this province might be profitable. Meanwhile, so long as colour, mood, and decorative effect are what we chiefly require from painting (and it is un-reasonable always to demand more), Japan can satisfy our wants. If we feel an urgent need for a more tangible world, wherein things have obvious bulk and substance, we must make a fresh beginning by turning to Classical art.

To illustrate Classical painting our theatrical manager

APPENDIX

will need a wholly different outfit. Cardboard figures will no longer serve. We must have solid little statuettes for our characters, but we need no longer spend so much time in colouring them. A simple flesh tone, and two or three plain tints for the draperies, will be enough to begin with; as will a back-cloth painted with a few broad architectural forms. Our statuettes will be so definitely characterized as to tell their own story, without elaborate settings, or complicated arrangement on more than one plane. The spectator will be seated in the stalls, where he can see the figures from head to foot, but little or nothing of the ground on which they stand. Our tableaux will deal with the legends of gods and heroes; the statuettes will therefore have to be finely modelled, in order that the attributes of power or grace proper to such personages may be clearly presented and distinguished. This clarity will further involve the telling of the story with the fewest possible figures and accessories, so that the spectator's eye may never be distracted by subordinate features, nor confused by their multiplicity. The lighting, as before, will be from the front.

The revival of the art in Italy by Giotto will necessitate a few changes. Our statuettes must be more massive, their colouring more varied and more vivid, their facial expressions more emphatic. The back-cloth will be blue, and against it may be set some conventional shapes of trees, mounds of earth, or buildings. The number of the figures may be increased, and one group may be seen some little way behind the group in front. As time goes on this feeling for recession will develop, the back-cloth will be moved further and further away from the footlights, the blue will be gradated to the horizon as in a real sky, with little clouds in it, perhaps, and distant hills below, to convey the idea of space. Geometry and perspective will appear on the stage. The cubical content of solid bodies, and the forms that result from foreshortening them, will be studied and analyzed; figures and buildings in the distance will

be given their proportionate diminution. Yet the effect of the scene will still depend upon the foreground figures, on the rhythm of their gestures, and on their proportion to the background and to such architectural features as are introduced. Celestial personages may not infrequently have to be suspended in the air, but the problems of suspension and their apparent movement will be relatively simple. Our stage should have no serious difficulty, therefore, in presenting Italian art as it was in the days of Botticelli; especially since the lighting remains clear and straightforward.

The change begins with Leonardo da Vinci. He demanded a mystery of presentation corresponding to the subtleties of human psychology, and obtained it by darkening his colours, dimming the light upon his background. and concentrating it generally upon the heads and hands of his figures, which he modelled with great force of projection and inimitable refinement. Raphael, when he came to Rome, was commissioned to illustrate the triumphs of Knowledge and of the Church. This necessitated the handling of huge crowds of figures, which, thanks to his sympathy with classical art, he was able to control, so that, in addition to a surface pattern of the old type, they made a second pattern by their disposition in space. So clearly organized is this disposition, so well in accord with its architectural or other setting, so admirably do the individual figures play their several parts, that the result is universally acknowledged to be the supreme example of spectacular presentation.

Almost immediately, however, this plain three-dimensional type of design was complicated by Correggio and Titian. Painters had hitherto set their figures in front of a landscape. Titian set them in a landscape, and so fused them with it that the one became inseparable from the other. Correggio, in the Duomo at Parma, goes still further, connecting figure with figure and group with group, as they

recede into the sky, with such a profusion of floating clouds and fluttering draperies that our theatre, even if furnished with all the resources of the pantomime 'transformation scene' and of Hollywood, could not hope to reproduce the luminous impalpable arabesque. Tintoretto carried this intricacy of fusion, movement, and recession to a still more inimitable extreme. When Rubens, Rembrandt, and the Baroque period arrived with the seventeenth century, there was really not much more to be learned about the rhythmical disposition of volumes in space, and much of that space was now in cloud-land.

Tintoretto had recognized also the potency of illumination—how by veiling the light here, strengthening it there, and by shifting its angle of incidence, the accents of mystery and revelation could be varied at the artist's will—and, to this end, employed all the resources of an unrivalled pictorial stage-craft. In the next century, Rembrandt became the acknowledged master of this mobile illumination, although, in his passion for mystery, he often left his stage much too dark for the spectator's convenience. By retaining, however, the verticals and horizontals of an architectural setting, Rembrandt never lost touch with the majestic classical style; nor did De Hooch and Vermeer, for all their adherence to contemporary fashion, their naturalistic lighting, and the artful simplicity with which they suggest volume and recession. The popular instinct which accepts them as masters in their particular province, holding Life and Art in equable balance, is thus thoroughly justified.

Tintoretto and Rubens subordinate this rectangular framework, or dispense with it altogether, in order that, by schemes founded on spirals or diagonals, the volumes which they handle may sweep still more freely through space in any conceivable direction. In such painting the masses are detached from any restraining boundaries, and float on their appointed paths like the themes in a musical symphony or the clouds in a stormy sky. Whether it is good for a

painter thus to break adrift from all moorings, in the search for complete liberty of movement, must remain a matter of taste. It was the baroque fashion; but others may feel (as I do) that these billowy movements are most impressive when they come as a contrast to the vertical mass of a wall or column, or to the levels of a wide horizon-when, in fact, they retain some hint of that interplay between vital movement and formal structure upon which the full-grown classical style is founded. In landscape, for example, we seldom find that a study of drifting clouds, even though it be by Constable or Turner, is wholly satisfying. They need the contrast of some formal element to give their movement its full value. A few level lines of stratus may be enough, but an expanse of plain or sea, or, if we can introduce them, a building or upright trees (as in Hobbema's Avenue), will be still more effective.

The landscape painter has other difficulties to face, in that, the elements which he handles are far more heterogeneous than those which the figure painter is called upon to harmonize. Trees, for example, are so soft in texture, so intricate in silhouette and so definite in colour, that they cannot be transmuted into manageable pictorial factors without considerable stylization, and the symbols for them which are accepted by one age may seem false or inadequate to the next. When creating shapely symbols for forms that are naturally indeterminate, it is essential for their harmonious combination that their shapeliness should have some common characteristics, whereby each may be linked with its neighbours. This harmonious connexion is so generally subordinated to the innate, or indoctrinated, idea of "Truth to Nature", that comparatively few have succeeded in painting important landscapes which really hold their own with figure painter's work. In a rapid sketch, by any practised hand, some sort of harmony comes automatically. strokes of the point or the brush flow into one another as naturally as the characters in cursive writing. Differences

of local colour, too, have to be simplified. If they are suppressed altogether, as in the landscape studies of Claude and Rembrandt, or the monochrome painting of China and Japan, the unity is far more complete than any which could be obtained by more deliberate and naturalistic colouring.

Let us take, for example, such a painter as Ruysdael. He can construct a landscape in which the sky and the earth have each their due recession into the far distance. His trees and windmills are enveloped in air, his clouds float in the same diaphanous medium, a general use of atmospheric gray brings all into fair tonal unity. But his trees, when their broken forms are conspicuous features, do not fuse with the rounded contours of the clouds, so that the unity of design is harshly interrupted. Rubens overcame this difficulty by drawing his trees with the same rapid sweeping touch that he used for sky and figures, and attains thereby a greater harmony of rhythm and movement. The freely handled studies of Constable surpass his finished pictures in the same respect, and for the same reason; the painters who employ the brushwork of the Impressionists or Post-Impressionists have a similar advantage over those using more precise methods.

This harmony of form is, of course, still more easily and completely attained by the Cubist experiments in reducing everything to some sort of geometrical equivalent. So long as it remains a novelty, any such method may be most serviceable for advertising, from its undoubted power to stimulate curiosity and attention. But the expressive range of the symbol is so diminished by this dractic simplification that, for any more subtle or dignified purport, it is useless. Geometrical figures and properties, if ingeniously coloured, lighted, and combined, may be quite effective as a music-hall turn, or as a scene in a past-crime, just as the imagery of a doll's-house makes an amusic to a trast to realities; but, if our theatrical manager were to sent the trast to realities; but, if our theatrical manager were to sent the petition in bankruptcy, or be committed to a limit, and any transfer

With Turner, in his later period, form is adroitly symbolized in a very personal fashion. The harmony thus attained (of which we can judge by the engravings) is enhanced by the transposition of natural colour into schemes and keys as free, almost, as those which the musician handles. To this despotic treatment of landscape motives we may contrast the early practice of Corot, who uses his material with a respect for its natural appearance not unlike that shown by Vermeer, and with a similar balanced judgment in the selection, proportion, and disposition of his masses in light and space. Corot's relation to Turner, indeed, is like that of Vermeer to Tintoretto, or, if we take a literary parallel, like that of 'Persuasion' to 'Adonais'. For painting, though it is limited in time to the chosen moment, covers almost the whole province of the creative human imagination, whether it plays with men's actions and character, and their material staging, or takes flight into the empyrean and its impalpable splendours, the path of which can hardly be followed even by the discerning eye, and certainly cannot be analysed by any formal geometry. Grammar may help us to read the meaning of such achievements: with their causes, qualities, and consequences it has no concern.

INDEX

(See also the Table of Contents.)

Adams Brothers, 208
Aldobrandini Nuptials, the, 93
Alexander and Darius at the Battle
of Issus, mosaic, 79
Amiens, stained glass at, 185
Antonello da Messina, 83
Apelles, 92
Aquatint, 47, 73, 75
Architecture, 33, 34, 45, 46;
and see Chap. IX.
'Aretine' ware, 173, 178
Armour, 47, 202, 204
As:isi, 93
Assyrian architecture, 150; reliefs, 142
Avercamp, 65

Baroccio, 97 Baroque art, 26, 33, 46, 128, 130, 145, 156, 163, 210 Barye, Antoine Louis, 131 Beauvais Cathedral, 162 Bellini, Giovanni, 83, 96, 105, 119, 121 Bernini, Giovanni, 130, 131 Binding, 216, 217 Blake, William, 65, 68 Bohemian glasš, 183, 184 Bologna, Eclectic School of, 116 Bonc, Muirhead, 60 Book of Kells, 212 Book-production, 212 Botticelli, 30, 94, 220 Bow porcelain, 141 Brass-work, 202

Bristol, opaque glass, 184 Bronze-work, 124, 133 ff., 200 ff. Brown, Ford Madox, 16 Brueghel, Pieter, 84, 91, 107, Brush-work, 29 ff., 63, 64, 78 Buddha, scated figures of. 21, 132, 136, 137 Buddhist paintings, 222, 223 Burne-Jones, Sir L., 186, 191 Byzantine art, 79, 89 fl., 128, 129, 143, 160, 183, 189, 194, 195, 197, 206, 222 Cabinet picture, the, 87, 88; in the Netherlands. 98 ff.; principles governing, 108 ff. Canaletto, 74 Cano, Alonzo, 125, 139 Canova, 131

Canterbury, stained glass at,

Chelsea porcelain, 52, 141 Chinese bronzes, 136, 137, 200, 201; brushwork, 30, 64, 90; carpets, 194; design, 30, 64, 90; painting, 21, 119, 222, 223, 229; porcelain, 36, 52, 74, 124, 140, 169 ff., 176, 179 ff.; primitive reliefs, 142; silk fabrics, 194, 196; statues, 14, 132, 138; statuettes, 140 Chippendale, 48, 209, 211 Chryselephantine figures, 138 Cibber, Colley, bust of, 14, 141 Classic art, 20, 21, 92 ff., 224, Claude, 62, 63, 105 ff., 229 Clay, sculpture in, 139 ff. Cobden-Sanderson, T. J., 217 Cologne, glass, 183 Colour, use of, 34 ff., 42, 43, 69, 224; in pottery, 181, 182; in sculpture, 14, 123 ff., 138, 139 Constable, John, 65, 73, 85, 106, 228, 229 Copenhagen porcelain, 141 Corot, 230 Correggio, 60, 96, 97, 226 Cotman, J. S., 65, 66, 102 Coysevox, Charles Antoine, 131 Cozens, J. R., 65, 106 Cretan frescoes, 89; goldsmiths' work, 204; plaster relicfs, 142; pottery, 171, 177, 180; statuettes, 139 Crome, John, 106 Cubists, the, 115, 229 Damascus ware, 170 Dancing, its relation to art, 23, 24, 27 Daumier, 70

Damascus ware, 170
Dancing, its relation to art, 23, 24, 27
Daumier, 70
David, Jacques Louis, 98, 104
David, bronze statues of, 135
Decoration, origin of, 6, 23; principles of, 24 ff., 50, 51
Degas, 62, 108, 118
De Hooch, Pieter, 15, 16, 100, 101, 227

Delacroix, 22 Delft, painters, 91, 101; potteries, 91, 179 della Quercia, Jacopo, 144 Della Robbia ware, 124, 140, Demeter of Cnidos, 128 Desiderio da Settignano, 145 Design, principles of, 17; and see Chap. III. De Wint, Peter, 65 Donatello, 129, 135, 144, 145 Drawing, materials, 60 ff.; primitive, 8 ff., 56, 57; uses of, 23 Dresden porcelain, 52, 141, 179 Dress materials, woven, 194 ff.; printed, 197, 199 Dry-point, 72 Duccio, 91, 222 Dürer, Albrecht, 60, 64, 68, 71, 74, 99

Eclectic School, the, 116
Egyptian architecture, 149, 153, 154, 157; drawing, 57; glass, 183; metalwork, 200, 204, 206; painting, 15, 89, 222; pottery, 174 ff., 181; sculpture, 13, 14, 124, 126, 127, 133, 134, 138, 139, 142; textiles, 189, 194
Elam, statue of a queen of (Louvre), 133
Etching, 73 ff.; wrong use of,

47
Etruscan goldsmiths' work, 205
Evc, Clovis, 216

Facnza, pottery, 178
Ferro-concrete, use of, 149, 153, 156, 165
Flaxman, John, 145, 208
Florence, architecture of, 151, 158
Florentine art, 68, 81, 114, 115, 144, 145; pottery, 178
Fouquet, Jean, 212

Fresco, 77 ff.

Furniture, English, 46, 209 ff.; French, 46, 51, 201, 210; tubular steel, 203

Gainsborough, Thomas, 37, 60, 104, 106 Gauguin, 224 Genoa, reliefs at, 158; fabrics, 196 Gesso, 81, 83 Ghiberti, Lorenzo, 144 Gibbons, Grinling, 210 Gilding, 49, 50 Gill, Eric, 215 Giorgione, 21, 84, 96, 103, 119 Giotto, 94, 225 Giovanni da Bologna, 135 Girton, Thomas, 65, 66 Glass, stained, 184 ff.; vessels, 182 ff. Gobelins tapestry, 190 Goldsmiths' work, 171, 172, 204 ff. Gothic architecture, 33, ome architecture, 33, 45, 151, 153 ff., 160, 162 ff.; book-production, 212, 213; silver-work, 207 Goya, 15, 70, 74, 75, 91 Graining, 49 Greco-Roman art, 77, 93, 102, 107, 143, 144 Greco, El, 97, 125 Greek architecture, 32, 152, 154, 157; bronzes, 133, 134, 136, 200, 201; drawing, 57, 58, 89; gold coins, 205; painting, 15, 92, 94, 95; reliefs, 142, 143; sculpture, 14, 52, 58, 93, 94, 123, 124,

Haden, Seymour, 74 Hals, Frans, 103 Hellenistic art, 79, 88, 99, 128, 139, 178, 180 "Henri II. Ware", 178 Heraldic art, 35, 43

126 ff., 152; silver-work, 206;

vases, 58, 169 ff., 177, 178

Gubbio, pottery, 178

Herculaneum, 131, 134, 208
Hermes, the, of Praxiteles, 128
Hilliard, Nicholas, 65
Hispano-Mauresque faience,
170, 173, 178
Hobbema, 228
Hogarth, bust of, 141
Hoogstraten, 101
Holbein, Hans, 60, 65, 68, 91,
103, 224
Holloway, 217
Horne, Herbert, 214
Houdon, 131
Hypnerotomachia, the, 215

Impressionists, the, 16, 85, 91, 107, 229
Indian art, 33, 65, 90, 132, 136; cotton fabrics, 194
Ingres, 98, 104
Iron-work, cast and wrought, 50, 202, 203
Ivory, sculpture in, 6, 126, 143

Japanese, bronzes, 136; brushwork, 30, 64, 90; colourprints, 69, 91, 107, 223; design, 32, 42, 108; earthenware, 180, 181; landscapes, 21, 224, 229; metalwork, 201, 202; reliefs, 145, 147; textiles, 196, 197; wood-engraving, 68, 69
Jenson, 213
John, Augustus, 60
Johnston, Edward, 215
Jones, Inigo, 160
Julius II., Pope, 94

Kändler, 141 Karnak, 153, 157 Keene, Charles, 63 Kossovo, temple at, 132 Kwan-yin, figures of, 138

Lamerie, Paul, 208 Landscape painting, 104 ff., 224, 228 ff. Lawrence, Sir Thomas, 104

Le Gascon, 216 Leonardo da Vinci, 59, 60, 84, 115, 119, 226 Lettering, 51 Lindisfarne Gospels, 212 Line engraving, 71 'Literary' elements in art, 114, 118, 119 Lithography, 70 London, architecture, 33, 45, 158, 160, 161; art collections, 14, 46, 98, 101, 141, 211,212; sculpture, 132, 203 Louis XIV., period of, 97, 131, 201, 210 Lysippus, 134 Madrid, Royal Palace, 191 Maillol, 131 Manct, 16, 85, 104 Mantegna, 94, 111, 119, 121 Manuscripts, mediaeval, 212, 213 Marble, imitation, 49 Murcantonio, 7: Marcus Aurclius, equestrian statue of, 135 Masaccio, 94 Mathematics in painting, 115 May, Phil, 63 Medea, fresco, 119 Mediaeval book - production, 212; carvings, 52, 143; drawing, 59; painting, 15. 90, 91; sculpture, 128, 129, 138, 143; stained glass, 184; tapestry, 189 Meissen porcelain, 52, 141, 179 Menzel, Adolph von, 60 Méryon, Charles, 74 architecture, Mesopotamian 149. 150; metalwork, 204. 206 Mestrovic, 132 Mezzotiat, 47, 72, 73 Michelangelo, 30, 60, 62, 79, 64, 95, 115, 128, 150, 160, 164 Millen, Cathedial, 201; S. Ambacio, 256

Milles, 126 Miniatures, 65, 66, 90; in MSS., 212 Mino da Fiesole, 145 Modena, terra-cotta workers, 125, 140 Mohammedan art, 13, 151, 175, 193, 196 Morris, William, 186, 191, 197, 198, 213, 214, 217 Mortlake tapestry, 190, 191 Mosaic, 79, 80 Moscow, the 'Mogess', 165 Murano, glass, 183 Mycenac, goldsmiths' work, 204; pottery, 171

Naples Museum, 79, 200, 207 Naturalism in art, 13, 16 ff., 39 'Naturalist' school, the, 15, 84, 100 Nefert, statue of, 14 Nefretiti, Queen, head of, 14 Neolithic art, 27, 57, 88 Nuremberg, glass, 183, 184

Nantcuil, 71

Objets d'Art, 51, 52
Oil painting, 82 ff.
Orcagna, 144
Oriental tradition in painting,
the, 89 ff.
Oxford, windows at, 185, 186

Padua, sculptures at, 135, 144, 145
Painting, decorative element in, 39; definitions of, 106, 221; realism in, 14 ff., 39; and see Chap. VII. and Appendix
Palaeolithic art, 4, 8 ff., 27, 56, 87

Paliviy, Bernard, 178 Palladio, Andrea, 162 Palma, 84 Parn, Invalides, 162; Louvre,

127, 133

Parma, Correggio at, 96, 226 Parrhasius, 15, 92 Parthenon, the, 24, 39, 127, 143, 162 Pastel drawing, 61, 62 Pattern-making, beginnings of, 25 ff.; elements of, 40 ff.; in textiles, p81 ff.; printed fabrics, 197 ff. Paul Veronese, 84, 96 Pen and ink drawing, 17, 18, 62, 63 Pergamon Altar, the, 128, 130 Persepolis, 149 Persian architecture, 149, 150; bindings, 216; bronzes, 136; carpets, 192 ff.; metalwork, 201, 206; miniatures, 65, 66, 90; painting, 222; fine textiles, 195; ware, 37, 172 ff. Perugino, 104 Pheidias, 127, 177 Photography, 16, 17, 69, 71, 118 Piero della Francesca, 115 Piranesi, 159 Pisanello, 144 Pisano, Giovanni, 129, 144 Pisano, Niccolo, 129, 144 Pissarro, Lucian, 214 Plate, bronze head of, 134 Pol de Limbourg, 212 Pollaiuolo, Antonio, 115, 135 Polygnotus, 92 Pompeii, 92, 98, 131, 208 Porcelain, characteristics of, 173; Chinese, 36, 52, 74, 124, 140, 141, 169 ff., 176, 179 ff.; European, 48, 52, 141, 179 Portland Vase, the, 183 Portrait miniatures, 65; painting, 102 ff.; sculpture, 14, 126, 127 Post-Impressionist, the, 229 Pottery, beginnings of, 27, 29, 167; types of, 168 ff.; varieties, 172 ff.; decoration of, 174 ff.

Poussin, Nicolas, 21, 66, 96, 102, 106, 107, 116 Praxiteles, 128 Printing, 212 ff. Punch drawings, 17 Puvis de Chavannes, 98 Rahotep, statue of, 14 Raphael, 39, 59, 60, 71, 79, 95, 111, 190, 226 Ravenna, Episcopal throne of Maximian, 143; 80; tapestry, 189 Realism in art, 11, 13 ff., 39, 117, 118 Relief, sculpture in, 8, 141 ff. Rembrandt, etchings, 18, 72, 74, 109, 120; paintings, 15. 21, 86, 97, 103, 110, 119, 120, 224, 227, 229; pen and brush drawings, 62, 63 Renaissance architecture, 154, 156, 160, 164; book-production, 210; goldsmiths' work, 171, 172; metalwork, 201, 207; painting, pottery, 178; sculpture, 14; wood-carving, 208 Reni, Guido, 90 Reynolds, Sir Joshua, 73, 104, 113, 115 Rhodian ware, 170 Rickens, Charles, 214, 217 Rodin, Auguste, 131 Roman architecture, 151, 152, 155, 159; glass, 183; mosaics, 79, 80; painting, 92 ff.; pottery, 173, 178: sculpture, Romanesque architecture, 154. Romantic art, 21, 22, 118 ff. Rome, British school, 98: St. Peter's, 160; works of art. 39, 95, 125 Ross, Prof. Denman, his Thery of Pure Design, 41 Rasellino, 145 Rossetti, D. G., 63, 65, 66

Roubiline, 14. 141 Rubens, 31, 60, 84, 97, 105. 106, 130, 224, 227 Ruskin, John, 156 Ruysdack, 229

Salisbury Cathedral, 162 Samian ware, 173 Schöngauer, Martin, 71 Sculpture, beginnings of, 8 ff.; realism in, 13, 14; and see Chap. VIII. Scythian metalwork, 205, 206 Seated Scribe, the (Louvre), 127 Sevres ware, 141, 171, 179 Sheffield Plate, 208 Sidon, Sarcophagi, 124 Sienese painting, 81, 91 Silver-work, 200 ft. Sixties, English illustrators of the, 69 South Africa, Bushmen of, 8, 56 Stevens, Alfred, 98, 132, 203 Stockholm, Town Hall, 166 Susa, 175 Swedish glass, 184; modern

silver-work, 209 Syrian glass, 183

Tanagra figures, 93, 139 Tapestry, 189 ff. Terra-cotta sculpture, 124, 125, 139 11. Tell-el-Amarna portraits (Berlin), 127 Tempera painting, 80 ff. Theatre of Painting, the, 221 ff. Ticpolo, 62, 91, 98 Timomachus, 93 Tintoretto, 60, 84, 96, 97, 224. 227, 230 Titian, 84, 96, 102, 103, 116, 121, 226 Torcello, mosaics, 80 "Truth to Nature", 98, 117, 228 Turkey carpets, 192, 193 Turkish wares, 37, 172, 173, Turner, J. M. W., 22, 35, 61, | Zeuxis, 15, 92

65, 66, 71, 73, 85, 102, 105, 104, 228, 230

Uccello, Paolo, 115 Updike, D. B., 214 Ur, 126, 150, 204 Lirkino pottery, 178

Van Dyck, 60, 65, 66, 74, 103, Van Eyck, Hubert, 83, 99, 105,

Van Eyck, John, 15, 99 Van Ostade, 65 Vaphio gold cups, 204 Velazquez, 15. 103 Veneers, use of, 49

Venetian architecture, 156, 160, 164; fabrics, 196; glass, 48, 183; painting, 96; typefounders, 213

Venice, Salute, 162; S. Marco, 135

Vermeer, Jan, 15, 16, 39, 91, 100, 101, 117, 118, 227, 230 Verrocchio, 135, 145, 201 Vicenza, Basilica, 162

Wall-papers, 196, 198 Water-colour drawing, 64 ff. Waterford glass, 184 Watteau, 60, 62, 91, 119 Watts, G. F., 121 Weaving, beginnings of, 27;

pattern in, 188, 189; and see Chap. XI. Wedgwood ware, 21, 180 Whistler, J. M'Neill, 70, 74,

Whittingliam, Charles, 213 Wilson, Richard, 106 Wood-carving, 137 ff., 209 ff.; engraving, 68 ff., 215

Wren, Christopher, 160, 162

Yacca, 135 York, stained glass at, 185

91, 224